

INCLUSIVE EDUCATION

A CASEBOOK FOR GOOD PRACTICES

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Universidade de Évora 2023



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PREFACE

With the increasing prevalence of inclusive education, there is a growing demand for educators who can effectively support students with diverse needs in general education classrooms. To address such needs, this book, titled "Inclusive Education: A Casebook for Good Practices", offers a comprehensive resource for educators by providing teaching cases.

The book introduces the concept and use of cases, followed by 14 teaching cases that can be utilized in various teacher education courses. These cases are based on real-life experiences of parents, students, and educators within inclusive education settings, offering vivid descriptions of their encounters. Most of the cases present challenges or dilemmas that require resolutions, such as parents' struggles to obtain inclusive education for their children, students' efforts to succeed in general education classrooms, experiences of special educators, principals, and teachers as they collaborate towards inclusive programs, and teachers' concerns for their students' future success. These cases are narratives derived from real-life situations encountered by the authors of the cases. They provide intricate descriptions of the experiences of parents, students, and teachers in the realm of inclusive education.

This Casebook is combined with a Guidebook and a Book about Support System in European Countries that are combined in a MOOC, and was developed in the scope of the European ASUMIE-project, funded by Erasmus+ KA2, that aims to share knowledge and create network around the concept of additional support in inclusive education. European countries started the process towards inclusive education in a different pace, depending on legislation and educational history. Successful inclusive education depends on the transfer of knowledge and skills and cooperation between teachers, parents and support professionals. The project focuses on strengthening the role and skills of people that support pupils, classroom teachers and/or school teams (https://asumie.eu/).

The Casebook presents a set of cases that illustrate concepts and strategies which come into play, including reasonable accommodations, universal accessibility tools, collaborative work with parents, mediated learning experience, cognitive prerequisites of learning, interprofessional teamwork, integration of support domains, and transferring learning

support to the development of key competencies. This text explores these concepts and provides practical cases based on experiences from partner countries: Belgium, Bulgaria, Czech Republic, Italy, Norway, Slovenia and Portugal.

ACKNOWLEDGMENTS

The completion of this work has been made possible with the support and contributions of numerous individuals and organizations. We would like to express our heartfelt gratitude to all the partners of the ASUMIE project.

A special mention goes to the teachers, special educators, parents, and administrators who graciously shared their time and experiences, allowing us to develop the cases and teaching notes that form the core of this project. We are deeply grateful for their invaluable contributions.

It is our sincere hope that this book will assist readers in their understanding of the complex issues surrounding inclusive education and serve as a valuable resource for incorporating innovative curricular and pedagogical approaches into their professional practice.

INTRODUCTION

Adelinda Candeias Universidade de Évora

The diversity of pupils in schools has become a reality. Italy and Portugal as well as in Norway started generalized inclusive education in the last decades, which opened the doors and created the conditions for a real welcoming of children with disabilities in a regular school environment. After the 2006 UN Convention for the Rights of People with a Disability (CRPD), which declared inclusive education as the first choice and a right for every child, all European countries had to change their laws and the organization of their education system. Not only is the right to inclusive education guaranteed, but states are also obliged to organize the necessary support so that children can execute their rights. Several European projects, financed by Life-Long Learning or Erasmus+ Programme, have worked towards the realization of this goal, but now in 2023, 17 years after the UN Convention (and more than 25 years after Salamanca), this is far from realization.

Moreover, the operationalization and quality of inclusive education widely differ, some countries go even back to more segregation. It has been estimated that about 20% of primary school children experience additional support needs in learning (Lebeer et al., 2010), but the percentages vary widely according to where the school is located. Some schools have more than 50% of children with additional support needs. The concept of "experience of barriers to learning" has been introduced to replace the old, but still widely used, the concept of "SEN – special educational needs" (Ainscow). "Barriers to learning" is considered more adequate, because barriers can be within the child (neurological, genetic, executive, socio-emotional) or in the environment (lack of support, lack of inclusive attitudes, lack of reasonable accommodations in the curriculum, lack of assistive technology, etc.). The realization of good inclusive education has to be seen in an ecological, system-oriented way (Lebeer, 2006): it is highly contingent on the cooperation of key-actors on various system levels (school directors, teaching staff, support staff, parents, child, peers, community, policies, rules, finances, etc.).

One of the key factors is the content and organization of effective support for the teachers and school team as we propose in ASUMIE project, where the direct target group involves support professionals working with a classroom-teacher as a leader of a team within inclusive education settings, working as school-internal staff, or external support teams; i.e. support teachers, rehabilitation professionals (educational psychologists, clinical psychologists, psychomotor therapists, speech therapists, occupational therapists, doctors, ...), parent coaches. The Indirect target group is obviously children, young people experiencing barriers to learning (aged 0-21).

The general objective of this ASUMIE project is to improve the whole school teams by enriching the skills of support professionals in order to enhance the self-efficacy in (cognitivesocioemotional) inclusive learning in those children experiencing barriers to learning, improving inclusive education.

Key concepts in inclusive education are 'reasonable accommodations' and 'additional support'. The concept of reasonable accommodations, introduced by the UN Convention on equal rights for people with disabilities (CRPD), is a broad concept operationalized and interpreted in different ways. It applies to more technical or special accommodations, material and immaterial adaptations, specific resources or support people... This has to be negotiated between the various key actors.

The project focuses on the role and skills of the support professionals that support the classroom-teacher as a leader of a team in organizing and implementing additional support and realizing accommodations in the process of inclusive education. Support systems for inclusive education widely vary across countries in Europe. There are school-internal support staff and external support staff. Some are highly educated, some lowly educated. Some support staff has a leading role, others an executive role. Some are trained in education, others in rehabilitation professions (speech therapists, physiotherapists, occupational therapists), others have no adequate training. Previous training varies widely. It is not clear what works best and if there is a common ground, methods, and ways that work. The project aims to create and develop common strategies that can be used by support staff to support teachers and children that experience barriers to learning. More specific the project wants to

explore the use and interpretation of reasonable accommodations, a good understanding of the bridge between transversal cognitive competencies and key competencies for learning and dealing with behavior issues and interprofessional/interdisciplinary teamwork. This must generate several learning materials and activities, that can be used by everyone realizing inclusive education, regardless of the professional training or background.

Therefore, the project focuses on developing materials that improve a good understanding of the bridge between transversal cognitive competencies and key competencies for learning, as well as collect examples of good practices (Lebber et al., in press). On behalf of ASUMIE project we are pleased to write this foreword for Inclusive Education: "Inclusive Education: A Casebook for Good Practices". This exciting casebook introduces educators to real-life experiences shared by professionals, students, and their families, that will better prepare them to work with students with disabilities in inclusive classroom settings.

The objective of this book is to present an overview of good support trajectories in Europe, based on the local experiences. They are concrete illustrations and realization of the more theoretical concepts presented in the guide book. The case book describes support trajectories selected per each partner country, written and made visible through practical examples. Both are interesting learning tools for training, exercise, and reflection.

This book comprises an introductory section that introduces the concept and application of cases, accompanied by 14 teaching cases suitable for various teacher education courses. So in this Casebook, in a deep liaison with the Guidebook, you could find cases, selected by partners in each country as examples of good practices, that by implementing reasonable accommodations, utilizing universal accessibility tools, collaborating with parents, employing mediated learning, addressing cognitive prerequisites, embracing interprofessional teamwork, integrating support domains, and transferring learning support to key competencies, educators can create inclusive learning environments that empower all learners to thrive:

• Reasonable Accommodations: Reasonable accommodations involve adapting the learning environment to meet the diverse needs of students. These accommodations can range from modifications in curriculum delivery to adjustments in assessment methods.

Collaborative discussions with stakeholders, including educators, parents, and specialists, can lead to effective accommodation strategies (Smith et al., 2020).

- Universal Accessibility Tools: Universal accessibility tools promote inclusive practices by ensuring access and participation for all learners. These tools may include assistive technologies, multi-sensory materials, and flexible learning resources (Johnson & Brown, 2021). By employing these tools, educators can create a supportive and inclusive learning environment.
- Work/Cooperation with Parents: Collaborating with parents is crucial for inclusive education. Practical suggestions for effective parent partnerships include open communication, involving parents in decision-making processes, and providing resources for parental support and engagement (Garcia & Jones, 2019). Regular meetings and parent-teacher conferences can foster a collaborative and inclusive approach.
- Mediated Learning: Mediated learning emphasizes the role of educators in guiding and scaffolding students' learning experiences. Educators can facilitate meaningful connections between new information and students' prior knowledge, promoting active engagement and comprehension (Vygotsky, 1978). Mediated learning strategies empower students with diverse needs to overcome challenges and achieve their learning goals.
- Cognitive Prerequisites of Learning: Understanding students' cognitive prerequisites is essential for designing effective learning support. Identifying individual strengths and challenges allows educators to tailor instructional strategies accordingly (Johnson et al., 2022). By addressing cognitive prerequisites, educators can create inclusive learning environments that support diverse learners' academic and social-emotional development.
- Interprofessional Teamwork: Interprofessional teamwork involves collaboration among professionals from various disciplines, such as educators, therapists, and specialists. By working together, these professionals can provide comprehensive support that addresses students' diverse needs (Smith & Garcia, 2021). Regular meetings, joint planning, and shared decision-making contribute to cohesive and holistic support for inclusive education.

- Integration of Support Domains: Integrating the main domains of support, including communication, social-emotional learning, mobility, and academic development, is crucial for inclusive education. By considering these domains holistically, educators can create cohesive learning experiences that promote students' overall well-being and development (Brown, 2020).
- Transferring Learning Support to Key Competencies: Learning support should extend beyond academic skills and be integrated into the development of key competencies. By focusing on critical thinking, problem-solving, collaboration, and communication, educators can equip students with essential skills for lifelong learning and success (Johnson et al., 2023). This approach ensures that inclusive education goes beyond knowledge acquisition and fosters the growth of well-rounded individuals.

In this casebook, you will find a collection of narratives that provide rich and detailed accounts of the actual experiences of students and teachers in inclusive educational settings. The method of an interpretive or analytical case study has been used because :

- the description of the cases is rich and complex;
- it fits the description and analysis of complex situations;
- it's ideal to illustrate, support and challenge theoretical concepts (our key concepts for additional support and inclusive education);
- it's meant to explore and identify characteristics, problems, challenges, lessons learned and success factors.

Partners selected the cases of good practice by mutual consent with their local network and the people involved in the case, based on criteria as:

- good examples of additional support and inclusive education;
- illustrate one or more of the key concepts used the project and guide book.

Each case offers multiple perspectives, including those of students, parents, general education teachers, special educators, and administrators, sometimes collaboratively. It is important to note that while the incidents described in this casebook are based on real events, confidentiality has been maintained through the use of altered names, locations, and

identifying details (Johnson et al., 2021). The cases were either written or narrated by the case authors. Those that were narrated (designated by the phrase as told by) were written from transcripts of interviews I held with parents and educators (the narrators).

Cases as a teaching method have been widely employed in various disciplines such as medicine, law, business, and education. Presented in a narrative format, cases present authentic dilemmas and problems with intricate details. Engaging with cases involves more than just reading narratives; it requires comprehensive preparation, active participation in class discussions, analysis, problem-solving, and follow-up activities. Through the exploration of these cases, both prospective and practicing educators can gain a deeper understanding of situations from the perspectives of students, parents, and teachers (Herreid, 2016).

Additionally, cases provide a valuable opportunity to bridge theory and practice. They offer a meaningful context for applying the theories learned from assigned readings to real-life situations, making the information more relevant and practical (Yin, 2018). Collaborating with peers, analyzing the challenges faced by teachers in inclusive settings, and evaluating potential solutions enhance critical thinking skills and facilitate professional growth (Wassermann & Koch, 2020).

Moreover, engaging with cases fosters self-reflection and self-awareness among educators. By internalizing the experiences shared in the cases, educators can examine their own practices, motivations, and decision-making processes (Moje & Wade, 1997). This reflective process allows for professional growth and the development of a more inclusive mindset.

By reading and discussing these cases, educators can cultivate analytical and problem-solving skills that are essential for addressing the diverse needs of students. The insights gained from analyzing real-life situations contribute to a better understanding of the needs of children and support the ability to make informed decisions (Smith et al., 2019).

The process of exploration the cases requires patience fot dicovery, as Christensen (1991) has emphasized the "disorderliness of discovery." Just as even the most determined explorer cannot navigate a jungle in a straight line (p. 105), it is important to acknowledge that engaging in case discussions involves grappling with complex issues and situations that may closely resemble the challenges faced by teachers. Consequently, fruitful discussions needs

time, effort, and critical reflective thinking (Baxter Magolda, 2016; Brookfield & Preskill, 2016).

Creating a learning community within the team is pivotal to the success of case discussions. In a learning community, all participants recognize and value the contributions of others, fostering an atmosphere of safety and inclusivity that encourages risk-taking and promotes learning (Christensen, 1991; Palinscar & Herrenkohl, 2002). It is a shared responsibility to cultivate a learning community where ideas are openly shared, actively listened to, and thoughtfully acknowledged (Garrison, 2007; Wenger, McDermott, & Snyder, 2002).

Therefore, as you engage in case discussions, be prepared for the nonlinear nature of the process and embrace the patience required for discovery. By creating a learning community that values diverse perspectives, active listening, and open-mindedness, you can foster an environment that nurtures meaningful engagement and enhances learning.

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MARIA'S INCLUSION – YES IS POSSIBLE!

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SUMMARY OF THE CASE

Maria, a student with Angelman syndrome, faces various impairments in intellectual, cognitive, sleep, attention, memory, and motor functions. Despite limited communication skills, she receives support from medication, augmentative communication strategies, and mainstream educational technologies. Her family, friends, peers, and community members provide full support. With personalized educational support, specialized therapies, and an individual-specific curriculum, Maria has successfully integrated into regular classes. She has now started secondary education in visual arts, focusing on autonomy and communication. Maria's journey highlights the importance of inclusive education and individualized support in nurturing the potential of students with special needs.

Vídeo Link: <u>https://www.youtube.com/watch?v=8ncSnGJCdm4</u> or <u>https://www.youtube.com/watch?v=y1Y_H7uuKHI</u>

BACKGROUND AND CONTEXT

A successful history of inclusion within the school system is Maria's story. She is 18 years old and was born with Angelman syndrome, diagnosed through cytogenetic analysis when she was 15 months old. The student was assessed by reference to ICF, at the end of her pre-school attendance, one month before entering first grade. Maria began primary school in the 2013/2014 school year. From that assessment, we retain here what has not changed and mention the improvements we have been recording. In accordance with ICF's Body Functions

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and Structure, Maria displays a non-specified impairment in intellectual functions and cognitive dimensions. She has impairments in certain sleep functions, in attention, memory and basic psychomotor and cognitive functions. With regard to voice, articulation, fluency and speech rhythm functions, there is no verbal communication. She has impairments in digestive and urinary functions, as well as impairment in the stability of joint functions, muscular strength and tonus, involuntary motor reactions, imbalance impairment, exhibits a mild impairment in voluntary movement and muscles and function of movement. In relation to ICF's Activity and Participation, Maria has a severe impairment in interaction with objects, limitations in language acquisition and development, limitations in performing general tasks and demands, a severe impairment in body control, a severe impairment in communication, full impairment in self-care, a severe impairment in eating and drinking function. Concerning interaction and interpersonal relationship level, she also displays impairments. In the major life areas, she displays a complete impairment.

In relation to ICF's Environmental Factors (facilitators or barriers to participation and learning), we consider as a complete facilitator the use of medication to assure Maria's wellbeing as far as they prevent convulsive episodes that can harm her development, provoking a regression in her acquisition/skills. For communication as a moderate facilitator, the first phase of PECS was started, as a means of augmentative communication. For Education as a significant facilitator, we consider that the utilization of mainstream products and technologies for education could facilitate the acquisition of new skills.

Concerning the support and relationships, we consider the immediate family, friends, peers, colleagues, neighbours, and community members as full facilitators.

As a complete facilitator, individual attitudes from immediate family members, friends, acquaintances, peers, colleagues, neighbours, and community members and from health care staff and personal assistants who show complete receptivity to all of our suggestions and strategies.

As a complete facilitator, it is possible to register her good relationship with social security, with health (having timely medical surveillance of the child's needs and referrals) and with work and with the job (because the mother's job allows her to take care and respond adequately to Maria).

PROGRESS AND EVENTS

Considering the assessment in reference to ICF, the measures that we consider more suitable to respond to the pupil's needs were:

Measures from Decree-Law nº3/2008

- a) Personalized Educational Support a) The reinforcement of the strategies utilized in group or class at organizational, space and activities levels; b) Stimulation and strengthening of skills and competencies implicated in learning; c) reinforcement and development of specific skills (Socialization, Autonomy, Communication, Motor Skills);
- b) Adjustments in the registration process Attending school with a Unit of specialized support for the education of children with multiple disabilities, where these specific supports are ensured at the speech therapy and physiotherapy levels. The pupil goes 3 weekly hours to APCE in order to attend Music therapy and Riding Therapy).
- c) Adjustments in the Evaluation Process The evaluation is qualitative and based on criteria such as attendance, behaviour, motivation, evolution, and attitude-facing tasks (availability, attention, rejection), in diverse areas from the ISC.
- d) Individual Specific Curriculum (ISC) Removal of common curricular areas (Portuguese, Mathematics, Environmental Studies) and introduction of specific curricular areas (Augmentative Communication, Socialization, Autonomy, and Motor Skills).
- e) Supportive technologies (tablet, suitable software, adaptive writing material)

Other measures

As required by law, the pupil benefits from a class with a reduced number of students, establishing that groups integrating children with special educational needs cannot exceed 20 students nor include more than 2 pupils with those conditions.

Bearing in mind that social interaction constitutes an important basis for development and learning, we intend Maria to be, when possible, in the classroom so she can have access to a diversified set of information and experiences that serves as a foundation for her cognitive and socio-emotional development. One of the strategies utilized is to match, in the class

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schedule, more inclusive moments (musical expression, dramatic expression, reading stories), with the time that the pupil is in the class. Her severe impairments at the activity and participation level imply educational approaches combining opportunities to explore the environment with interactive communication opportunities. In the classroom, the work with the pupil should have as a starting point group work, so that she has points of contact with her peers (the pupil studies numbers when her colleagues are studying Mathematics, she works with words when her colleagues are studying Portuguese, she works on rudimentary Environmental Studies content from her colleagues' curriculum, but at a very basic level and with adjusted activities).

Maria spends more than 60% of her school hours in the classroom (8h in therapies plus 17h in the classroom = 25 hours a week). She has Personalized Pedagogical Support from the Special Education teacher, 8 hours a week; Speech therapy from a speech therapist 3 hours per week; Physiotherapy from a physiotherapist, 3 hours per week; Music Therapy from a musical therapist, 1 hour a week; therapeutic riding from a physiotherapist, 1 hour a week).

The pupil has an educational action assistant who provides support for the moments in the classroom when the special education teacher is away, in extracurricular activities, while eating and for personal hygiene.

Finally, we review the inclusion of the pupil in a regular class at the Basic School of Portel, considering as strong points that Maria learned how to be in diverse contexts, adopting correct behaviour in the classroom and in other environments she attends. The importance for peers to interact with the difference, being able to learn about respect and compassion. As a weak point, the great difficulties in attention/concentration become serious challenges to learning and the amount of stimulus naturally present in the regular classroom does not always help in attenuation. Also, some adapted tasks developed with Maria are, sometimes, distracting for her colleagues. But in spite of the less positive aspects, we will always turn difficulties into challenges to our capability to increasingly improve our response to Maria, making the difference our biggest strength.

Maria finished the 2nd cycle of basic education (5th and 6th level) in the academic year 2018/2019.

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Attended the 3rd cycle (7th, 8th and 9th level), between 2019-2022, remaining in the same class since the 1st year. During this period, they continued to work, essentially, on gait training, language acquisition and development, and intentional communication. The support, in carrying out activities with Maria, was given mainly in the context of the classroom, in the different areas of the curriculum.

In the academic year 2022/2023, she started Secondary Education in Évora, the district capital, about 40 km from where she lives, travelling every day by taxi. She is enrolled in the 10th grade, in a Visual Arts class.

Her adaptation to the new school took place quite smoothly, having established, quickly, affective ties with colleagues, teachers and operational assistants.

She accompanies the class in the disciplines of Physical Education and Drawing A, working individually or in a small group, with the Special Education teacher(s).

Maria's progress, in terms of learning, was limited, however very important for its development. Autonomy and communication continue to assume a priority role in the work carried out with Maria.

CONCLUSION AND THOUGHTS FOR THE FUTURE

In conclusion, Maria's journey within the school system has been marked by remarkable efforts to promote her inclusion and facilitate her development despite the challenges posed by Angelman syndrome. The support of her family, friends, peers, and community members has been instrumental in creating a nurturing environment for her. Personalized educational support, specialized therapies, and an individual-specific curriculum have catered to Maria's specific needs and fostered her progress. Although attention and concentration difficulties persist, Maria has successfully integrated into regular classes and has embarked on secondary education in visual arts with enthusiasm. Continued focus on autonomy and communication will remain pivotal in ensuring her continued growth and learning. By transforming challenges into opportunities, Maria's journey exemplifies the power of inclusive education and underscores the importance of individualized support and positive relationships in unlocking the potential of every student.

THE ARTIST WITH LEARNING DIFFICULTIES

Lenka Krejčová Jana Pechancová Daniela Pokorná

SUMMARY OF THE CASE

The following story is about a girl who has the specific language impairment and specific learning difficulties. No-one had recognized her difficulties before she entered the first grade of elementary school. After that a team of support people was involved, i.e., a speech therapist, a school SENCO, a school special educator, psychologists, and special educators from two counselling centres. The girl is currently adult. She has finished her secondary school in spring 2023 so we can follow her study career and her life for approx. thirteen years. She is now a successful and happy artist.

BACKGROUND AND CONTEXT

When Eva started her elementary school at the age of six, she immediately faced various difficulties. She rarely talked at school. She had difficulty to understand both Math and Languages. She looked very shy and quiet. Her teacher noticed she had some learning difficulties, but her suggestion was to let Eva fail the year. In other words, she expected Eva to repeat her first year of schooling. However, the school remedial teacher found such solution too devastating for girl's self-esteem and she sought help among various support people.

Eva first came to our NGO which worked in the field of school counselling. An educational psychologist from the NGO conducted a complex psychological assessment. As she interviewed Eva's mother it turned out that Eva had always had difficulties with language and speech. The mother remembered how Eva learned new vocabulary. Even though she learned

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her mother tongue, whenever she came across a new word, she repeated the word several times for herself. She worked with the words as if it was foreign language vocabulary. The acquisition of the language took her much longer than her older sister. When she attended a kindergarten, she also visited a speech therapist. However, the interventions only focused on correct pronunciation. Nobody noticed she faced difficulties to acquire the language and express herself through the language.

The psychological assessment showed that Eva was a very bright girl. Her logical reasoning was on a very good level, which contrasted with her learning achievements. She could compare information, analyse information, generalize and/or infer information from a given problem. When she processed information, she apparently preferred pictorial, figural and/or graphic modality. On the contrary, it was much more difficult to elaborate verbal problems.

The assessment outcomes as well as the personal history information led to the recommendation of the speech assessment. The family was referred to a speech therapist who specialized in the specific language impairment. The combination of information from psychological and language assessments led to the conclusion that the girl suffered from specific language impairment (SLI) which had been unrecognized until then.

Instead of failing the first year of school she was entitled to have a teacher assistant who helped her with the learning, and she continued her study. However, the process of learning was still exhausting and time-consuming.

The diagnosis explained why Eva had difficulty in Math and Languages. As both language reception and language expression were affected by the SLI, it was very difficult to comprehend concepts, e.g., she never understood that the words "plus", "add", "and" are synonymous – she considered them words with different meanings. Furthermore, she seemed shy and quiet as she never managed to speak fast and efficiently enough to get involved into conversations. It always took her some time to recall all the words she needed to express herself.

As Eva continued her elementary school, apart from specific learning impairment she was also assessed with dyslexia. Her main difficulties thus included:

- Speech difficulties i.e., it took her time to express herself; whenever she learned new words and was expected to internalize new concepts, it was a very demanding activity, which required much more time than her classmates needed.
- Reading difficulties i.e., the decoding was very slow, non-fluent, with a high number of mistakes; furthermore, it was a very exhausting activity.
- Writing difficulties even though her handwriting was always very neat and legible, it took time to write even single words and her writings contained a lot of spelling mistakes.
- The difficulties had impact on all main school subjects (Czech language, English, Maths, Science) as reading instructions, taking notes and/or solving problems in a written form as well as learning new concepts was always exhausting and difficult to acquire. Eva needed intense support to comprehend new learning instructions and topics. She learned at school, at home, with a school SENCO, at a counselling centre. Revisions and explanations requested time and several meetings on the same topic. Furthermore, it was very important to speak the same language, so she knew all the support people and educators talked about the same topic.

PROGRESS AND EVENTS

Most of the assessment and counselling was conducted at the end of Eva's first school year when her teacher and her parents noticed her severe difficulties at school. Immediately after the procedures, school team and counsellors met with parents and worked on a support plan and also on an individualized education plan (IEP) for Eva.

She got a **teacher assistant** for the following school years who stayed with her until the fifth grade. Among others, the role of the assistant was to adjust time limits to Eva as she sometimes needed more time to work on certain kinds of task – especially those which required a lot for reading and writing. They usually stayed in a quiet part of a classroom and worked on the task longer than the other pupils – the assistant helped Eva to focus on work and assured her she did not need to go back to the rest of her class and continue schoolwork before she finished her current tasks. The assistant also helped Eva with reading and writing. When she needed to read longer instructions, the assistant made sure she comprehended. Sometimes the assistant read to Eva instead of her reading and Eva thus got enough time to work on the task and not to lose energy and time by reading long texts herself. Furthermore,

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when Eva took notes and/or wrote some texts, the assistant helped her to correct misspelled and unfinished words so that the text made sense and could be used for further schoolwork.

The assistant worked in close cooperation with the **class teacher** who prepared study plans and was available to explain and/or revise various study topics with Eva. The class teacher was the main person responsible for following and completing the IEP successfully. However, she had frequent support from other colleagues at school who also helped Eva and worked with her on a regular basis.

Eva also attended extra support lessons organized by the school remedial teacher. Once a week she worked with this lady who either helped her to understand school topics and/or they practiced various strategies and reading and writing. At the beginning, Eva had extra lessons with the remedial teachers, i.e., the lessons were beyond her school schedule. However, as she passed into higher grades, she attended this lessons instead of learning the second foreign language (this was one of the accommodations in her IEP – she learned even her mother tongue as if it was a foreign languages, and she faced difficulties to acquire English, which was priority; thus the teachers and the family agreed she would not learn German as the second foreign language, instead she had more English lessons and she visited the remedial teacher). Eva sometimes needed to explain and internalize concepts involved in her study topics more thoroughly. Even though the teacher assistant helped her to revise the concepts, it was not efficient enough. She needed more individualized work. It was not traditional Nyborg's concept learning as Nella was older and bright, so she already internalized concepts from Grunnlaget programme. But the sequence of Nyborg's concept learning (i.e., identification of the concept, discrimination of the concept and other similar concepts, and generalization of the concept) helped her even with more complicated language, math and/or language concepts. These difficulties had close links to her SLI and dyslexia. All the support people had to be aware of the impact of both diagnosis on her learning processes.

Apart from the school remedial teacher Eva also visited our NGO where she worked with **special educators and psychologists**. This work stared in her second grade and continued until 2023 when Eva became adult, and she passed her final exams at secondary school. This was the longest cooperation with support people which Eva received. When she was younger,

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the interventions primarily focused on cognitive functions and operations which were deficient due to the SLI and dyslexia. She trained her perceptions, phonological processing, her short-term memory, her verbal skills. All this affected the process of learning and writing which were trained in the connection with the cognitive functions. She needed to practise the decoding process of reading but based on specific cognitive interventions. Otherwise, she would only have suffered from failures and spent an enormous amount of time on reading training.

As she got older, the interventions focused on various learning topics. Eva learned to reflect on her difficulties, and she always knew what she needed to practise. This became one of her strengths as she learned to be aware when she needed support and what she managed on her own. When the support was needed it often focused on specific learning strategies which she needed to train as the traditional learning approaches did not work for her. She still needed the use of cognitive operations such as analysis, comparisons and/or categorisation to learn new concepts. She also needed more visual stimuli to learn. She created charts, symbols, used colours to categorize new vocabulary, accompanied her notes with pictures and schemas. Sometimes she only needed time and space to adjust her learning materials to such forms. And she got such opportunities when attending the therapy at our centre.

None of the support interventions and/or prevention processes would have worked if her **parents** had not been involved in Eva's education. The family was always very supportive. They communicated with all support people. They learned strategies how to work with Eva at home. They regularly helped her with learning and school assignments. They watched her closely and knew what helped her (when Eva was younger, her mother even created different visual learning aids for the daughter). Whenever they noticed any difficulty, they discussed the problem with the support people at school and also at the NGO and tried to find a new way of learning and help for Eva. They also sometimes worked as communication coordinators between the school and the NGO as these institutions did not have so many opportunities to work in a close contact. However, they respected each other's work and were willing to implement useful strategies of work from the other institution when working with Eva.

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The other crucial aspect of Eva's family life was the focus on Eva's hobbies and interests. Eva has shown a great talent of drawing since her childhood. She enthusiastically attended art classes and she developed her talent up to such level that after elementary school she continued her study in an art school. She is currently a toy designer which she enjoys a lot. The art always helped her to overcome her difficulties. This was also one of her strengths which was applied in the education process and helped us to find efficient study strategies. Above all, the art always made her happy. She experienced success, which prevented her from the feelings of inferiority.

Eva also showed some musical interests, so she learned to play a recorder. And the whole family is keen on dog dancing. They have four dogs, and they train them and attend various competitions and exhibitions. This is their common interest when they spend time together, have fun, love their dogs and play with them. On such occasions the schooling is not of such importance. They can only enjoy themselves.

CONCLUSION AND THOUGHTS FOR THE FUTURE

Eva still faces learning difficulties. Her reading is slower, she makes spelling mistakes when writing and she cannot see the mistakes. The internalization of new words and the use of verbal tools can still cause her troubles even though her progress was enormous. When someone would meet her and has not known her before, they would probably think she is a bit slower student. In fact, she has many ideas, and her logical thinking and learning can be fast. However, her verbal abilities (including reading and writing) may sometimes affect her achievements.

However, thanks to the continuous support she received, **she learned what her strengths and weaknesses are**. She knows when and how to ask for help, how to use ICT to overcome her problems, when she can be absolutely competent herself and does not need any external support. The **focus on her strengths** which was always a topic in the process of her support, helped her to find her way of life. The other crucial aspect of her story is certainly the **multidisciplinary care** which she received from the beginning of her study career (i.e., teachers, teacher assistants, school remedial teachers, speech therapists, psychologists, special educators, and counsellors). The institutions involved in Eva's support were the

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school, a state counselling centre, speech therapy centres, and our NGO which works with students with learning difficulties.



Eva's creative work toys and Eva's paintings

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ONE IN A THOUSAND AND ONE OF US

Virginia Vasileva

SUMMARY OF THE CASE

Kalina is a 12-year-old girl with a rare genetic disease. She is one of the two cases diagnosed in Bulgaria. For this reason, in her early childhood, the family's path in search of diagnosis and treatment was difficult. Her parents took on an uphill battle in which, with a lack of information even in medical circles and a lack of trained therapists, they manage to do the best for their child. The prognosis was for the child to have complex and intensive support needs, as well as to regress in her condition. The family did not lose faith and found ways to connect the specialists who worked with their child. To date, Kalina is a student in the 4th grade in a mainstream school. She walks independently, speaks and understands everything. She started swimming lessons. Together with her family, she regularly attends cultural events.

BACKGROUND AND CONTEXT

Kalina is the second child in the family. She was born at term and with a normal weight, without abnormalities around birth. At the age of 5 months, Kalina developed epileptic seizures, which became more frequent over the next months and she was prescribed drug therapy. Shortly after her first birthday she was diagnosed with Developmental delay and West syndrome. Her parents educated themselves a lot. They kept looking for medical professionals because they felt it was not just that. At the age of 2, Kalina underwent genetic testing. The resulting DNA analysis revealed a rare mutation in the CDKL 5 gene, characterized by early onset epilepsy, low muscle tone and developmental challenges. Kalina was the second proven case of this gene mutation in the country. Her parents confronted the statistics and contacted specialists abroad where the condition was diagnosed more often. They also connected with other parents. They learned the bad prognosis that they had to give up on the idea that their child would walk, talk and go to school. Kalina was a child with weak immunity,

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often suffered from acute viral infections, which was why her parents preferred to raise her at home, and she had little or no contact with peers. Despite ongoing antiepileptic treatment, she experienced an average of 6-7 nocturnal seizures monthly. She had a delay in all areas of development.

PROGRESS AND EVENTS

At the age of 18 months, Kalina started walking, having previously had ataxia. Her parents contacted early childhood development consultants from the Early Childhood Intervention program of Karin Dom Foundation. During home visits, they learned approaches and strategies to stimulate the development of the child's motor, cognitive, communication and social skills. A year later, Kalina continued with centre based services at Karin Dom where a psychologist and a speech therapist worked with her on a weekly basis.

At first, the therapists themselves were also confused. They lacked clarity about the suitable approaches and strategies. In Bulgaria, there was a lack of any scientific information about the child's condition. Kalina was withdrawn and avoided contact, during the initial sessions she stood tightly in her mother's arms and refused to enter the room or look at the therapists. Through play and a lot of patience, the therapists achieved contact with the child and moved on to the next step. Kalina joined a small therapeutic group in a Montessori environment. Her adaptation there was slow and difficult, but she began to allow the children closer to her and imitate their movements. Her parents were active in the therapeutic process and applied the suggested approaches and strategies at home. Gradually, Kalina learned to recognize and point to the body parts, to differentiate colors and shapes. The qualities of attention and the volitional processes and the motivation to participate in educational activities developed. Kalina learned to play with toys. In the beginning, she only watched the children and stood timidly away from them. After a few months, she was already playing with them.

The specialists from Karin Dom advised parents in the search for a childcare facility. Kalina was enrolled into the neighborhood kindergarten where the staff was sceptical about whether and how they would be able to support and include the child in the group. According to documents, the child had a serious diagnosis and they didn't have a team of specialists in the kindergarden. Teachers didn't know how to communicate with Kalina and how to include her in the group. The parents found a social assistant who repeatedly attended the therapy

sessions with the child at Karin Dom. The goal was for the assistant to learn strategies for interacting with Kalina from the therapists. In a series of meetings between the staff of the kindergarten, the family and the specialists from Karin Dom, a common strategy for supporting the child was drawn up. Teachers received guidance and strategies from the psychologist and speech therapist at Karin Dom, so that they could more efficiently meet the social-emotional and educational needs of the child. Kindergarten teachers in turn shared in which routines and situations Kalina had difficulties, so that during the therapy sessions, the therapists prepared her for dealing with the challenges in the group.

In the beginning, Kalina attended the kindergarten until noon - the concerns of the staff and parents were related to her epileptic seizures during daytime sleep. Gradually, the fears and worries of the teachers decreased, and the parents trusted the nurse in the kindergarten. Thus, the child started to stay all day in the kindergarten. The director submitted the documents for resource support and a team consisting of a psychologist, a speech therapist and a resource teacher was assigned to support Kalina. These professionals worked with the child in both individual and group settings. They adapted the teaching materials so that teachers could attract Kalina's interest and include her in learning activities. Teachers guided the group process so that the children in the group accept and invite Kalina into their games. For a long time after her first words, Kalina remained silent and would speak a word only in rare cases. As the duration of her stay in the kindergarten increased, better adaptation was achieved - the children started looking for her to play with. Kalina became more sociable and active, as playing with her peers stimulated spontaneous communication and enriched the child's vocabulary.

Thanks to the teamwork between specialists, teachers and family, Kalina continued to progress in her development. Today she is a happy 12-year-old girl. She speaks and understands everything in the context of everyday and school communication with adults and peers. She attends school with a social assistant, but is independent in dressing and eating. Kalina is still anxious in social interaction, but she is overcoming her barriers and expanding the circle of people she communicates with. She is progressing with her individual development plan. She is well accepted by her classmates and has friends. Kalina enjoys going to school. She attends cultural events and has fun in her leisure time. Recently she learnt to swim independently.

CONCLUSION AND THOUGHTS FOR THE FUTURE

The positive outcomes in Kalina's development are the result of the great faith and tireless efforts of her parents to seek the best for their child. The family-centred approach in therapy and forming a team around the child of all support specialists was crucial in the process of including the child in a general education environment. Peers stimulate her development by setting a model of communication and social interaction.

Kalina's case teaches us that no matter how dire the circumstances around a child may seem from a medical point of view, teamwork and joint efforts of parents and specialists yield results. Efforts towards early inclusion support children's independence and overall development.

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https://www.cdkl5.com/about-cdkl5/



Video - One in a thousand and one of us https://www.youtube.com/watch?v=z8og-eEpS70 or https://www.youtube.com/watch?v=ZOe4Maj7bcs

CASE STUDY VIDEOS

FROM IMPOSSIBILTY TO POSSIBILITY

Nikoleta Yoncheva

SUMMARY OF THE CASE

A parent is built and developed over the years. There is no such thing as a failed parent or a parent who has not experienced difficulties. Every parent faces challenges, especially those families who have children with special abilities. Yes, that is what we will call them, because it is faith and our work in this direction helps children and families to develop their potential to the maximum. This is what the story of Danny and his family is all about.

BACKGROUND AND CONTEXT OF THE CASE

Danny is the second child in a family of three wonderful brothers. He is emotional, diligent and curious. At an early age, even before the age of two, the family had concerns about Danny's overall development. They faced challenging and chaotic behavior, lack of verbal communication and a preference for interacting with objects. The family went a long way and made many important decisions from an early age. A clinical psychologist and an early intervention team worked together with the family in the process of accepting the child's condition. They supported the family in the steps they needed to take to stimulate their child's development.

PROGRESS AND EVENTS

Danny worked in a structured environment, learning how to use an active visual schedule and Picture Exchange Communication System (PECS [®]), which he first applied in a therapeutic setting, then at home, and gradually, everywhere in everyday life: on the playground, in the kindergarten. Soon, the alternative communication helped him speak his first words and sentences. The special pedagogue supported his cognitive development and the acquisition of first everyday skills. Danny's knowledge and interests were progressing rapidly. In Family

Mediated Intervention groups, while Danny learnt how to interact with peers, his family met with other parents, and together, they shared strategies to support the development of Danny and other children in the group. In the kindergarten, a team of support specialists: speech therapists and resource teachers, as well as dedicated teachers, and children helped Danny to develop well, to make many friends and to communicate, to learn and play as his peers did. Even if he had challenges, the important thing is that a solution was always found.

Now Danny is a student, one of the best in his class. He wins spelling bees. He has an assistant who guides him in his assignments, and his teacher says that he is a successful, happy child who is very diligent and excels in his studies. The children say about him that he is smiling, knows a lot, and even though sometimes he prefers to play alone, that's all right, because they always have time to do things together.

Danny's journey and story is a big train in which the whole family rides and many relatives, therapists and teachers get on board to motivate the family, improve the child's development and above all, to help them build a better quality of life. This process involves also other parents who have already been on this path, who are confident and active in not only giving their child the best, but who have the experience and willingness to extend a helping hand to those families for whom the journey is yet to come.

CONCLUSION AND THOUGHTS FOR THE FUTURE

The story of Danny and his family help us all to learn a lesson. We learn to think about opportunities, diversity and empowerment. As for Danny, he learns how to live, how to grow happy, to get to know the world and to be independent and successful. School is the setting where he can integrate all of the above. Our role is to support him and his family in his right to accomplish that. Each one of us is an important stop in his journey. It is in our hands and our minds to open the doors and welcome him.



Video - From Impossibility to Possibility https://www.youtube.com/watch?v=wdXFJApPKpg or https://www.youtube.com/watch?v=P-WAWJzQ8is

CASE STUDY VIDEOS

GRAPHOMOTOR SKILLS - WHAT ARE THE DEVIATIONS AND HOW TO HELP?

Ana Simončič

Urška Pegan

INTRODUCTION

In our work in kindergartens on the Slovenian Coast, we encounter a large number of children and teachers who tell us that many children have difficulties with fine motor skills.

In this work we describe our work, based on the observation and intervention with several cases of children with graphomotor difficulties in Eslovenia. Difficulties are seen in a variety of activities, such as feeding, dressing and putting on shoes, use of scissors and doing creative activities. Since we have also noticed that these difficulties are quite common in the population of children with special needs, we have decided to prepare this work, organized into parts, one for the teachers and teaching assistants and another,, and other part, for parents of preschool children. The aim of our work is to encourage teachers to maximize the use of movement activities in kindergarten, both for the development of gross and fine motor skills, and for the development of graphomotor skills. We shared practical examples of the activities we use in the course of our work, and we will focalize on graphomotor deviations and support strategies.

GRAPHOMOTOR DEVIATIONS

Individual motor skills should develop over a range of ages - these are called developmental milestones. If a child is no longer reaching more than one developmental milestone for his age, this is a warning sign that requests further observation and practice. If, despite extra attention, problems persist, this is a sign in which specialists should be involved.

The development of graphomotor skills is influenced by many interior and exterior factors. The most important of them are muscle tone (also important for body posture and correct pen-grip), body schema, laterality, spatial orientation and environmental stimuli (Žerdin, 2011).

Writing letters requires voluntary and controlled movement. Handwriting can be improved willingly and consciously through practice. A disorder in the development of graphomotor skills may only become fully apparent when the child begins to learn to write systematically and is expected and required to follow the rules of writing. However, a disorder in graphomotor development can be predicted even before school entry. The disorder can be manifested in the child's written products as well as in the way he or she writes, that's why it is essential to observe both (Žerdin, 2011).

Problems may occur as a difficulty in performing a (grapho)motor task (also inappropriate pen-grip and posture) or as difficulties with graphomotor products.

PROBLEMS THAT MAY BE OBSERVED IN THE PERFORMANCE ITSELF (ČERNE, N.D.; GALEŠA, 1995; ŽERDIN, 2011):

- Child is less handy at putting on and taking off shoes,
- Is clumsy and avoids sports activities,
- Widespread incoordination of movements,
- General clumsiness,
- Poor orientation (we must observe the child in different environments),
- Inadequate coordination of ideas about movement and its execution,
- Difficulty in forming circular movements,
- It can be visible in the functioning of individual organs, for example eye tracking, pill swallowing, tongue pointing, swallowing and especially in the functioning of the speech musculature,
- Child may be less skilled in fine motor activities and has difficulties in activities such as assembling blocks, stacking coral, folding paper, folding towels, tearing and glueing paper, painting with fingers and brushes, fastening buttons etc.,
- Child gets tired quickly or his arm hurts when practicing fine motor activities,

- Is less motivated for activities that include drawing, painting and writing or he resists these activities,
 - □ Link activities to the child's motivational area (e.g. if child likes to play with cars, adapt creative activities to this theme).
- Underdevelopment of the pincer grasp,
- Clumsiness in grasping and moving small objects,
- Has a clumsy, stiff hand,
- The child's paper runs away, turns over,
 - □ Tape the paper to the writing surface (encourage the child to also hold the paper with non-preffered hand, because the aim is that over time tape won't be needed anymore).
 - \Box Place a non-slip sheet under the paper.
 - □ Encourage the child to hold the paper with non-preffered hand verbally remind him or use a symbol (e.g. a stamp on the hand), or give the child an object to hold on the table/paper (e.g. "the toy is looking at what you are doing").
 - **Pen grip:** The desired pen-grip when child is entering school is to hold the pen with a pincer grip, between the three fingers thumb, index and middle finger, about two centimetres above the point of the pen. The tip of the pen should lie on the edge of the hand between the thumb and index finger (Marquardt & Lipičnik, n.d.; Regvar, 1990; Žerdin, 2011).

Pen selection is also important. When writing, the child should initially use thick pens that leave a soft trace and encourage fluency of hand movement (e.g. crayons). It is also advised to use three-pointed pens or recessed coloured pencils to encourage the correct three-finger grip. The use of an appropriate pen is important as it allows the automatisation of a proper pen-grip, which adds to faster and more legible writing. With that, higher and more complex processes in the brain are activated (Lamme, 1979; Regvar, 1990).

Poor pen-grip can be caused by: problems with muscle tension, inadequate hand splay, unstable overly splayed joints, stiff/crooked hands, etc.



□ Activities to improve wrist strength and stability: drawing on inclined surfaces/boards, including walls and floors (we should give a child as many varied experiences as possible).



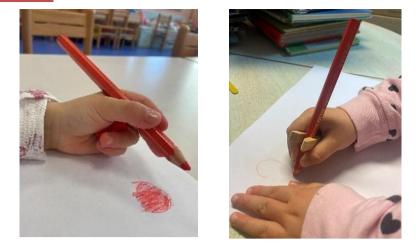
Activities to develop palm muscles: kneading dough, clay, Play-Doh (hardness is important, this way we increase the difficulty; we can also incorporate warm-cold and hard-soft opposites), assembling lego blocks, using small crayons and small objects, cotton buds.

Activities to develop the arc of the palm: opening boxes and containers, playing with nuts and bolts, putting beads on a string/small wire/feather (graduate the size of the hole and bead), opening and closing buttons and bottle caps.



□ Activities for opening and moving parts of the palm: grasping objects with tweezers, barbecue tongs, chopsticks, droppers, pincers (different hardness and sizes), playing with elastics and rubber finger opening aid.

- Other useful activities: Squeezing balls and rubber objects (different hardness for increasing the difficulty), use of Play-Doh for exercises involving different small muscles in the fingers and hands.
- More specific strategies: strategy bird's beak, hiding the ball (like it is a treasure), use of clothespin and elastic bands, use of picture support/reminders. If after that problems persist, we should consult with educators and specialists about the use of adaptors (those vary in size, hardness and pressure).



Body posture: Appropriate posture is when the child is sitting upright at the table with relaxed shoulders. The height of the table and chair is adjusted so that the child's feet are in full contact with the floor. The arms rest relaxed on the table, at a 90 degree angle. The elbow is not raised, the hand does not exert any pressure on the writing surface and the shoulder does not push down. The arm is free to move in all directions, allowing smooth writing (Marquardt & Lipičnik, n.d.; Regvar, 1990; Zrimšek, 2003; Žerdin, 2011).

An inappropriate body position is the one in which the child is tense, bent over the notebook, the trunk is twisted and so is the head. Child may support his head with the arm, grip the chair with the arm, the arm is pushed outwards in the elbow and the shoulder is raised. The arm is rotated at the wrist, being constantly lifted and moved (Regvar, 1990; Žerdin, 2011).

- Ensure optimum table and chair height with a footrest and/or a seat cushion. Only after the height is appropriate should the child's posture be observed again and if necessary, other strategies should be tried.
- □ *Child often slides forward out of the chair:* use a non-slip matting on the chair (alternative is to use non-slip sheets for the drawers).
- ☐ The child is constantly moving in the chair: use a cushion, which requires finding balance (the child needs more stimuli, this way we engage the child's vestibular system).
- ☐ *The child lifts the elbow, shoulder and/or wrist:* use a table that can be adjusted in inclination (an alternative is to use a laptop mat).

THE FOLLOWING VARIATIONS CAN BE OBSERVED IN THE PRODUCTS (ČERNE, N.D.; ŽERDIN, 2011):

- Child turns the notebook in the wrong direction,
 - \Box Marking the top of the page with the agreed symbol, sticker, stamp ...
- Child omitts pages in the notebook,
 - □ Use of self-adhesive page marker.
- Difficulty with repetition of shapes remembering the shape and actually doing it. He does not know when a line will be straight, crooked, slanted, does not imagine what the stroke will produce and does not know how to produce what he wants,



 Drawing from a model, step by step, initially placing elements on the model/copying.

- Drawing is not clear and recognisable,
- Step-by-step drawing cards, drawing by model.

- Child is graphomotorically more clumsy or less precise when drawing and colouring,

Restricting the lines with silicone glue or a furry wire (this creates a border to stop the child's crayon - initially the child should trace the line with a finger to get familiar with the shape).



- Difficulty connecting dots with a pencil and drawing a line between two lines

Restraint with silicone glue or hairy wire, encouraging slowlyness, use of stories and metaphors (e.g. you are driving a car, be careful not to crash).

Pen marks are poorly visible, or the pressure is so strong that the sheet is perforated
 pressure on the surface:

- Initially, use pens that leave a trace without much effort, flow smoothly (e.g. wax pens). Only then move on to pens that require more control and pressure from the child.
- □ Drawing on cardboard child should be careful to avoid holes/marks on the cardboard due to too much pressure.

For both inappropriate pen holding and inappropriate body posture and pressure on the surface, verbal reminders and/or the use of picture support/reminders can also be used to remind the child of what to pay attention to. If a picture support is used, it is important to present and discuss the picture with the child, it can also be made together or photographed (e.g. picture of the child in inappropriate and appropriate posture and comparison of the two). In these ways, the picture support is brought closer to the child, making it easier and quicker to remember.

It is important to be aware of what we are aiming to achieve when we are dealing with all the problems described above, because we cannot point out in one activity that the child is holding the paper with the non-preferred hand/how he is holding the pen/how he is sitting in the chair/how hard he is pressing on the surface and at the same time demand that he follows the given motive. We need to break the goals down into smaller steps and identify those that we will initially try to achieve.

The key to finding ways to help all the problems described above is to try out different options with the child and talking, to find the solutions that work best for him. It is also important to work together with parents, educators and all those who work with the child, because we can only achieve success by sharing information about the difficulties, the strategies and tools that help the child.

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A NEW VICTORY EACH DAY: THE RUNNER BOY RUI

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SUMMARY OF THE CASE

Rui is a 12-year-old Portuguese boy living with his mother and father. Rui's communication development, despite his autism diagnosis, is a significant aspect of his progress. Through different therapies and methods of support Rui developed his language skills. He articulated his first words at 23 months and formed simple sentences by three. This progress allowed him to engage in activities with peers and participate in inclusive education. Collaboration between parents, therapists, and educators played a vital role in fostering Rui's communication abilities. Early intervention and ongoing support were key in overcoming communication challenges for individuals with autism.

BACKGROUND AND CONTEXT

Rui is a 12-year-old Portuguese boy that lives with his mother and father. His parents warmly welcomed him when his mother was 36 years old, and his father was 37 years old.

Around the age of seven months, Rui's parents noticed distinctive behaviours in him compared to other children. He exhibited a lack of response to different environmental stimuli, such as not paying attention to pictures or turning his head to look. Instead, he displayed a hyper-focus on music and a repetitive behaviour of frequently opening and closing doors. When Rui reached 12-13 months old, his parents shared their concerns with a paediatrician, particularly because they noticed that their son's primary problem was his difficulty in understanding them. Following that, Rui's parents sought a developmental

medical appointment to explore the possibility of an autism diagnosis. This initial medical appointment marked the beginning of their journey. In their own words "(...) it was our first iceberg. It was not an ice cube but an iceberg. It was a very different day, a very complicated day, we couldn't see a light at the end of the tunnel (...)". On that day, Rui was referred to the Developmental Consultation at the Espírito Santo Hospital in Évora, where he received an evaluation for Early Intervention (IP – Intervenção Precoce) and subsequent intervention. Additionally, his parents sought a consultation at a private clinic. The neuro-paediatrician at the private clinic confirmed the diagnosis of "mild" autism spectrum disorder. This diagnosis provided clarity and guided further steps in Rui's treatment and support.

At the age of 2, Rui began receiving care and support from the child psychiatry department at the Unidade de Primeira Infância (UPI) - D. Estefânia Hospital in Lisbon, Portugal. During this period, he underwent a comprehensive evaluation, leading to the prescription of occupational therapy, speech therapy, and psychological follow-up as part of his intervention plan. In addition to the prescribed therapies, Rui's parents decided to supplement his intervention by opting for private speech therapy starting at the age of four and occupational-sensory therapy from the age of two. These private interventions continued up until the present time, although with occasional appointments becoming less frequent starting from the age of eight. During Rui's preschool years, the Early Intervention team worked collaboratively with his parents to develop the Technical Pedagogical Report (RTP – Relatório Técnico Pedagógico) and the Individual Educational Plan (PEI - Plano Educativo Individualizado). These documents were prepared in close coordination with the parents, ensuring their active involvement in the process.

As per his parents' decision, Rui attended a private kindergarten with early intervention support provided by the public system until the age of seven. Subsequently, he transitioned to primary school, where he was integrated into a mainstream first-grade class. To ensure his inclusive education, Rui received assistance from the Multidisciplinary Team of Support for Inclusive Education (EMAEI – Equipa Multidisciplinar de Apoio à Educação Inclusiva) and benefited from the resources available at the Resource Centre for Inclusion (CRI – Centro de Recursos para a Inclusão). In addition to the mentioned support, Rui had the guidance of a special education teacher who accompanied him both within the classroom setting and in

individual sessions. At school, he also received speech therapy services. Alongside this, Rui received occupational therapy from the Resource Centre for Inclusion (CRI). Furthermore, Rui began attending the Learning Support Centre (CAA – Centro de Apoio à Aprendizagem) within his school cluster. In this setting, he participated in activities designed to stimulate academic learning. Unfortunately, these activities were temporarily halted due to the COVID-19 pandemic.

Due to health reasons related to experimental autism medication, Rui experienced physical and behavioral regression, resulting in him falling behind academically and repeating two school years. However, at present, Rui, who is currently in the 4th grade, has made significant progress in his academic skills, language abilities, autonomy, and overall functionality. He has successfully regained his previous levels of achievement and is now preparing to transition to the 5th grade.

PROGRESS AND EVENTS

- Rui achieved the milestone of sitting independently for the first time at around 7-8 months old.
- 2. With the assistance of his mother and father, Rui began crawling at 9 months old.
- 3. Rui took his first steps and started walking independently at 14-15 months old.
- Rui articulated his initial words, "hello" and "water," at 23 months old, and at 2 years and 1 month, he began saying "mum" and "dad."
- 5. Rui started uttering his first simple sentences at the age of 3.
- 6. From the age of 3 until 7 years old, Rui developed his language skills using the Makaton pictorial system.
- 7. Between the ages of 2 and 5, Rui attended in hippotherapy.
- 8. During the period of 4 to 6 years old, Rui engaged in swimming lessons with the support of occupational therapists.
- 9. Starting at the age of 8, Rui engaged in sports, particularly running, and resumed swimming at the age of 12.
- 10. Rui developed his social skills by participating in activities with peers, including reading small group texts with classmates, engaging in music and dance, and joining school visits.

- In July 2022, Rui began participating in the 1st free time activities (ATL Atividades de Tempo Livre; a Pilot Project).
- 12. Currently, Rui is preparing for the transition to the 5th grade.
- 13. Rui's life project, tailored to his unique characteristics, is currently under construction as part of his ongoing development and planning.

CONCLUSION AND THOUGHTS FOR THE FUTURE

Rui's case serves as a clear demonstration of the intricacies involved in the process of inclusion. It highlights the presence of anxiety, concerns, and challenges, demanding unwavering perseverance from both parents and the professionals involved in supporting a young individual with special educational needs. Effective collaboration between these parties, along with the involvement of relevant institutions providing essential services, is crucial for the genuine inclusion of children and young people. Additionally, it is imperative to possess the necessary knowledge to establish an appropriate intervention model that caters to their specific requirements.

Within this context, both the immediate and extended family play a crucial role as a vital network of instrumental and emotional support. While the support from different institutions is valuable, enhanced coordination between the Learning Support Centre (CAA) and community organizations would foster closer integration between the school and the broader living environment. By strengthening this collaboration, a more comprehensive and cohesive support system can be established, further benefiting the child's educational journey.

Rui's example serves as a testament to the transformative power of inclusive education when supported by a dedicated network of individuals, institutions, and the continuous pursuit of knowledge. From the early interventions in preschool to his current preparations for the transition to the 5th grade, Rui's progress demonstrates the positive impact of inclusive practices and tailored interventions.

Rui's family emerged as an essential pillar, offering unwavering support, advocacy, and engagement throughout his journey. Their collaboration with professionals and active participation in decision-making processes contributed significantly to his overall progress.



Video - A new victory each day, the runner boy Rui https://www.youtube.com/watch?v=_VIFgKnFytA or

https://www.youtube.com/watch?v=1rszz2qTPfQ

CASE STUDY VIDEOS

STEP BY STEP TO SOCIAL INCLUSION AND CITIZENSHIP: VASCO CONQUESTS

Adelinda Candeias Adriana Félix Heldemerina Pires Maria João Carapeto Conceição Frango Ana Paula Romão António Portelada

SUMMARY OF THE CASE

Vasco, a wanted child, showed developmental differences at 18 months, including a lack of response to stimuli and delayed language and was diagnose with autism. Vasco received support from early intervention teams, speech therapy, and other therapies. Private assistance, particularly in speech therapy, complemented his progress. Throughout his schooling, Vasco had the support of special education teachers and benefited from measures for inclusion. Currently, at 20 years old, Vasco faces the decision of continuing in a vocational course or pursuing vocational training for future job integration. His parents prioritize his happiness and contribution to society.

PROGRESS AND EVENTS

Vasco was a very wanted child by his parents. He was born when his mother was 33 and his father 34. He has an older brother, older by 2 years and 4 months. Around the age of 18 months, his parents noticed that Vasco had some differences from the other children. He did not respond to different stimuli in the environment (e.g. paying attention to a picture, turning his head and looking others in the eye). He showed a special preference for objects with wheels to make them turn and manifested some repeated gestures that we later learned to call mannerisms. However, the main focus of concern was the fact that he did not talk as he was supposed to, in a child of his age.

Between 18 and 24 months, the paediatrician (Dr. Hélder Gonçalves) clarified to the parents that the lack of language was not a question of simple delay in communication. It could be something more complicated and, therefore, he ordered hearing tests.

After checking that there was no hearing problem, Vasco was referred by his paediatrician to Centro Diferenças, in Lisbon, to be seen by Dr Miguel Palha (a developmental paediatrician), who confirmed a diagnosis of autism.

Dr. Hélder Gonçalves also referred Vasco for a consultation with Dr. Pedro Cabral (Neuropediatrician), in Lisbon. Once again, the hypothesis of an autistic diagnosis was put forward. Twenty years ago, people were still talking about Asperger's Syndrome and this was a hypothesis that was put forward but without absolute certainty.

Vasco started then to be accompanied by Dr. Miguel Palha and the techniques of Centro Diferenças, mainly in Speech Therapy. Immediately, he was also referred by the paediatrician to the Early Intervention team (IP) of the Alentejo region that started to follow Vasco at home. Although he didn't attend kindergarten yet, Vasco started to go, occasionally, to a kindergarten room, to have contact with other children of his age.

His parents decided to seek another medical opinion and Vasco started to be followed by the Child Development Centre of the Coimbra Paediatric Hospital. He was evaluated for the first time in Coimbra when he was 3 years and 11 months old and the diagnosis was mild Autism Spectrum Disorder. The doctor responsible for the diagnosis was Dr. Guiomar Oliveira.

Currently, Vasco is followed in Évora, in the Espírito Santo Hospital, by Dr. Salomé Ratinho from the Childhood and Adolescence Psychiatry Team. Two attempts to take medication were made, one when Vasco was followed in Coimbra and another in Évora, but in both situations there were no significant advantages, so the medication was quickly abandoned.

In the meantime, he started attending Kindergarten in the Manuel Ferreira Patrício School Grouping, at the age of 3, and began to benefit from the support of a teacher/educator of the then-designated Special Education (Professor Fátima Moreira) who, by chance, still keeps some works done by Vasco at that time. It should be noted that this teacher/educator already knew Vasco, as she was also part of the early intervention team that started supporting Vasco before he entered Kindergarten.

After Kindergarten, Vasco started to benefit from other supports, such as: speech therapy, hydrotherapy, snoezelen therapy and psychology support. There were several technicians who worked with Vasco, in this period, but the one who spent more time with him, besides the educator, was the speech therapist Dr. Nídia Cambim.

His parents chose to complement it with private help, mainly in Speech Therapy, area in which the work developed by Dr. Margarida Ramalho, who accompanied Vasco until he was 14 years old, stood out. At this moment, Vasco continues with support, namely in Occupational Therapy and Speech Therapy, through APCE - Cerebral Palsy Association of Évora, on a private basis. At school, Vasco benefits from psychology and training in skills for active life, by the techniques of the Centre for Resources for Inclusion, of the Portuguese Association of Parents and Friends of the Mentally Disabled Citizen (APPACDM).

In 2009, he entered the 1st Cycle of Basic Education, at the age of 6, attending the 1st year class of regular education of teacher Georgeta Branquinho and begins to be accompanied by a new special education teacher (Conceição Frango) who accompanies him until the present year of schooling (9th year).

From the 5th year of schooling Vasco starts benefiting from the measure "frequency of the school year by subjects" and the fifth year curriculum is divided into two years.

This measure has been maintained throughout these years, until the present school year, in which the student is completing the second part of the subjects, of the ninth school year.

Vasco completed the 1st Cycle in four years (from 6 to 10 years old). In the 2nd Cycle four years to complete the 5th and 6th years (from 10 to 14 years). And finally, six years to complete the 7th, 8th and 9th years (14 to 20 years old).

From the first to the ninth year of schooling, Vasco was accompanied by the same special education teacher to anticipate and reinforce his learning, either in the classroom or in the Learning Support Centre, when necessary. Throughout his school career, Vasco was never held back.

At this moment Vasco benefits from the following learning and inclusion support measures under Decree Law No 54/2018 of 6 July:

Universal Measures (art. 8)

- a. Pedagogical differentiation:
- b. The curricular accommodations;
- d. The promotion of pro-social behaviour

Selective Measures (art. 9)

- b. Non significant curricular adaptations
- d. Anticipation and reinforcement of learning

Additional Measure (art. 10)

a. Frequency of school year by subject

Specific resources to support learning and inclusion (art. 11)

- Psychology (CRI/APPACDM)
- Active Life Skills Training (CRI/APPACDM)

Adaptations to the evaluation process (art. 28)

CONCLUSION AND THOUGHTS FOR THE FUTURE

Now, Vasco is about to finish the 3rd cycle and aged 20, Vasco and his parents have a difficult decision to make; one of two options: either Vasco continues studying in a Vocational Course that matches his preferences and skills, or he starts a Vocational Training, appropriate to his profile, with a view to integration into the labour market, in the short term.

The first hypothesis implies an enrolment by subjects, continuing to do one school year in two years, giving Vasco the possibility to conclude the compulsory schooling for his age group, leaving school more qualified, however, delaying his entry into the labour market.

The second hypothesis implies some training, but much shorter, more specialised in a certain area and, essentially, focused on the practical part, with on-the-job experience.

The decision is not easy! Vasco's parents want their son to be as well prepared as possible to face life's adversities, by doing some kind of job that will bring him happiness and will be useful to society.

or



CASE STUDY VIDEOS

Video - Step by step to social inclusion and citizenship Vasco conquests <u>https://www.youtube.com/watch?v=5ERvTr93h3I</u>

https://www.youtube.com/watch?v=3zioe4_1UOg

ISLAND OF RESILIENCE: THE SHIPWRECKED BOY'S JOURNEY TO RESCUE AND OVERCOME HIS LEARNING DISABILITIES

Gabriela Almeida

SUMMARY OF THE CASE

John, a 10-year-old student in the 5th grade, that has been diagnosed with severe dyslexia, dysgraphia, and dyscalculia

BACKGROUND AND CONTEXT

John is a school-age boy, with severe learning disabilities, including challenges in writing, reading, and arithmetic at his grade level. As a result, his academic performance is significantly impaired. In addition, he experiences psychomotor inhibition and dyspraxia, which cause difficulties in coordinating both gross and fine movements. Colleagues and teachers often describe him as clumsy. Despite these challenges, John demonstrates cognitive abilities that allow for a potential normal cognitive development.

John experiences also emotional difficulties that are associated with his learning challenges. He displays a low level of enthusiasm and lacks interest in learning. When faced with school tasks, he becomes listless and frequently yawns. John tends to avoid academic tasks due to a fear of failure. The ongoing challenges and perceived lack of progress have a negative impact on his self-esteem, leading to feelings of sadness. John often experiences frustration, anxiety, and feelings of depression due to difficulties in reading, writing, and calculating. John's greatest desire is to acquire the ability to read and write.

Due to feeling embarrassed and different from his peers, John experiences social isolation. John's writing and reading difficulties have a significant impact on his social life. During vacation, he faces challenges in communicating with his classmates via text, which often results in him staying home alone. His typical routine includes sleeping late, watching TV, and playing games. Additionally, due to his clumsiness, low motor competence and lack of motivation, he struggles with maintaining a healthy weight and is overweight. In addition to their learning abilities, their psycho-emotional development and physical health appears to be compromised.

He is enrolled in the 5th grade; however, he faces notable challenges in expressing his thoughts in written form, decoding, and sounding out words, as well as recognizing them. These difficulties significantly impact his reading comprehension. Moreover, his writing is illegible due to his limited fine motor skills (see figure 1).

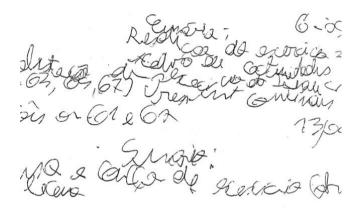


Figure 1 - John's school diary notebook showing his illegible handwriting

PROGRESS AND EVENTS

EVALUATION OF JOHN'S EDUCATIONAL DEVELOPMENT

Due to John's pedagogical and emotional difficulties, as well as a sense of incapacity that both he and his family have misunderstood, the medical team has requested a pedagogical and psychological evaluation. The evaluation aims to define an individualized educational program and facilitate the process of empowerment and personal growth.

During the evaluation, it was evident that John possessed intelligence; however, he exhibited reserved and introverted behavior, and difficulty in decision-making. He expressed feelings of fear and distress when faced with reading and writing tests, expressing a preference for drawing as an alternative (see figure 2). John's drawing may reflect his emotional state. The desert might represent feelings of isolation, incomprehension, and difficulties. The man

depicted in the drawing may represent John's sense of loneliness, while the oasis could represent hope and expectation for a brighter future.

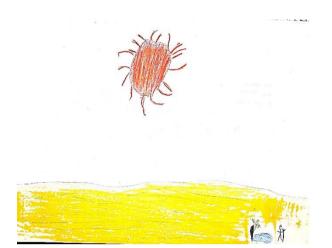


Figure 2 - John has drawn a desert, a man, and an oasis

John is conscious of his learning difficulties and recognizes that he delays behind his peers. With academic skills significantly below his school level and age, he struggles to keep up with new subjects in school. He has openly expressed his desire to acquire the ability to read and write, and he has actively sought help and support to achieve this goal. John finds himself metaphorically shipwrecked, awaiting rescue from his learning challenges (see figure 3).

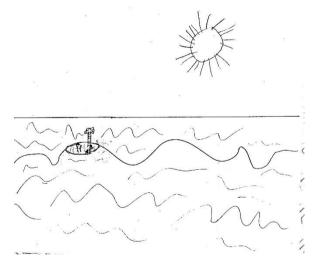


Figure 3 – John has drawn a man, an island, a palm tree. He named him draw "shipwreck a short time ago"

EMPOWERING JOHN THROUGH INCLUSIVE EDUCATION

During his preschool years, John exhibited challenges in fine motor skills and coordination, struggling with tasks that required precise control of movements. Additionally, he experienced delayed speech and language development, facing difficulties in expressing himself and understanding spoken language.

Upon starting his first year of schooling, John lacked the fundamental prerequisites necessary for instrumental learning.

After completing the first cycle without any retentions, John still faced significant difficulties in reading, writing, and performing mental calculations. At the academic level, the challenges related to written communication and reading have an impact on other curricular areas.

He has been diagnosed with developmental dyslexia, dysgraphia, and dyscalculia. A severe depressive psychopathological condition was identified during the assessment.

Despite facing learning difficulties and experiencing psychological suffering, John demonstrated a strong determination to acquire reading and writing skills.

John was provided with an individualized education program that included specific accommodations and recommendations tailored to address his significant difficulties. For instance, reading and writing intervention and support, alternative assessments, extended time for tests and modified assignments, preferential seating, assistive technology tools, such as text-to-speech software, and personalized attention and targeted support.

The recommendations for John's individualized education program were carefully tailored to address his unique needs, strengths, and goals. Teachers, parents, and therapists have worked diligently to ensure the provision of the most effective support for his academic and emotional growth.

Considering his weight status, John was referred to the school health department's endocrinology and nutrition division for additional assessment and support.

CONCLUSION AND TOUGHTS FOR THE FUTURE

Throughout his journey, John has faced challenges related to dyslexia, dysgraphia, and dyscalculia. However, with the support of an individualized education program tailored to his specific needs, he has been able to receive the necessary accommodations, interventions, and personalized attention.

Inclusive education has played a crucial role in empowering John by providing him with a supportive and accepting learning environment. By embracing the principles of inclusive education, teachers, parents, and therapists have collaborated to ensure that he receives the necessary support to overcome his learning issues. This has included specialized interventions for reading and writing, alternative assessments, assistive technology tools, and modifications to assignments and testing conditions.

Looking towards the future, inclusive education will continue to be a key component in John's educational journey. As John progresses in his academic journey, it will be important to monitor his progress regularly and adapt the individualized education program as needed. Continued collaboration between teachers, parents, and therapists will ensure that the support provided remains effective and aligned with his evolving needs, strengths, and goals.

The title "Island of Resilience: The Shipwrecked Boy's Journey to Rescue and Overcoming His Learning Disabilities" captures the essence of John's journey and the challenges he faces in overcoming his learning disabilities. It highlights his resilience and determination to navigate through difficult circumstances.

THE ROLE OF THE CLASS TEACHER IN DEVELOPING OF THE IP - THE CASE OF BOY R

Ana Simončič

A SUMMARY OF THE CASE

In the school year 2022/2023 I started teaching in an obligatory school with adapted basic school programme of an equal educational standard for children with hearing and speech impairment. Before that I mostly worked with children with autism. With September I became a class teacher in the first grade which attended also Riste. Before entering the school Riste was identified as having a moderate speech-language disorder and was also referred as a child with a mild intellectual impairments.

BACKGROUND AND CONTEXT OF THE CASE

Riste comes from a bilingual linguistic background and his mother language is Macedonian. The boy has significant difficulties in the areas of speech and language expression, language comprehension and speech intelligibility. Psychological tests showed lower intellectual abilities, less developed graphomotor skills, short attention span and distracted attention.

Before the start of each new school year a close team of school counsellors, individual support providers (speech and language therapists and special educators) carefully plans the support resources for each pupil. Depending on the type and degree of impairment, barrier or disability they draw up a plan of who will provide individual lessons for each pupil. Riste has therefore gained one hour of speech and language therapy and an occupational therapist with September. The speech therapist knew the boy from kindergarten and was also a member of the guidance committee which was very helpful for all of us in the team as we knew him better before he came to our school.

PROGRESS AND EVENTS

Before the start of the school year we met Riste's parents for the first time at an introductory parent-teacher conference. The purpose of the meeting was to introduce the class the way we work as a group and the learning objectives we follow in the first grade. During the introductory meeting we had an in-depth discussion about Riste. I prepared a short questionnaire with different questions about the boy's functioning which they could fill in within a few days in order to help us plan the work. The questions on the questionnaire were not related to learning and school skills but mostly to the boy's interests, possible sensory sensitivities, his habits, idiosyncrasies, what calms him, what upsets him, what are his strong areas.

As Riste's parents come from a different language background and have difficulties understanding Slovenian language themselves I read the questions to them first. I explained the meaning of the questions and then gave them time to answer them. They then took the questionnaire home, took time to think about it, completed it and brought it back to school on the first day of school. They themselves expressed fear that they would not be able to help Riste with his school work at home because of their poorer understanding of the Slovenian language.

At the initial meeting of the expert group for Riste, everyone involved agreed on how to make it easier for the boy to do his school work, study and work at home. Teachers have to take into account the characteristics that are conditioned by bilingualism in addition of moderate speech-language disorder and slightly reduced cognitive potential when preparing materials for the pupil and when working directly with him. The words and expressions we deal with at school are reinforced pictorially, verbally and also gestures. We also write down the expressions in his notes, workbooks and on worksheets which helps him to remember them more easily and to involve his parents more actively in his work at home. Whenever words, phrases, concepts, etc. are not understood the question that arises for me as Riste's teacher is how to present these verbal expressions in a different way, how to simplify them even further for the pupil. Most often, this is followed by a search for appropriate pictorial material.

We have tried to involve Riste's parents as actively and equally as possible in the development of the individualised programme. During the introductory sessions, I presented to them what

an individualised programme is what it includes and what it entails. I emphasised that they were an equal member of the expert team even before the creation ot the individualised. I did not just want them to sign the personalised programme. An effective personalised programme team is more than just a group of people with a common goal. A team differs from a normal group in the interaction between the individual members. The fact that parents are equal partners in a professional team can be found in almost every article on individualised programmes, including many articles on children with special needs and on education in general. Many authors stress that parents know their children best, they know what is best for their child. For this reason professionals can learn a lot from them. Parents respond very differently to invitations from schools or kindergartens to participate. Even when teachers sincerely want their cooperation, this is no guarantee that it will go smoothly, but at least the minimum conditions are in place. If professionals do not want this cooperation, there is not even the initial incentive that is a prerequisite for success. The second condition is certainly that parents (and professionals) are well informed about what kind of cooperation they expect, what they want and how they can encourage each other.

For Riste the extended stay teacher and I have developed indicative goals. We first presented the objectives to the parents. Together we then reworded them, completed them and proposed them for inclusion in the individualised programme at the expert group meeting.

As Riste's class teacher I tried to get as much information as possible from colleagues who had worked with him in the past. I spoke to his kindergarten extra help provider, a speech and language therapist who had completed the pre-school guidance process and a psychologist. I obtained some documentation concerning him (expert opinion, reports from the providers) but I only started reading them systematically after a few weeks of working with Riste. First of all, I wanted to form my own opinion about the boy, to get to know him in my own way.

It quickly became clear that the boy had very significant language deficits, so I wanted to tap into additional sources of help. In addition to the experts originally planned for the specialist team, I invited a special educator to join the team to provide an extra hour of one-to-one support per week. The objectives of her work are mainly focused on the acquisition of

language, words, expressions, naming, etc. We have agreed to start working on a dictionary of everyday expressions, which we will be updating in lessons.

When planning and implementing an individual programme for each child it is crucial to work together with all members of the team. It is also essential to provide information on an ongoing basis and to shape and adapt the content in order to achieve the planned goals.

The speech and language therapist, who provides individual support to Riste and I exchange information about the material on a weekly basis. She incorporates content into the speech therapy sessions to simplify, reinforce and improve understanding of the content covered in the lessons. Following her instructions and recommendations, I introduce exercises and suggestions into the classroom and into daily learning which are carried out with the pupil in individual lessons. I find this especially important for the first grade literacy tasks and exercises. I use games that they perform at speech and language therapy in an individual situation (e.g. syllabic exercises, voice analysis and synthesis) in Slovenian lessons and I also involve the other pupils. By agreement the speech and language therapist joins our group and plans and implements the activity herself. After each speech therapy session the speech therapist and I talk and exchange information about what they have been doing, in what way, and she describes to me any difficulties Riste may have in understanding the content. All this is to try to standardise the approach to the interpretation of learning material.

There is also a regular exchange of information with the boy's occupational therapist. I consult her about the use of assistive devices. For example we worked together to find the most suitable writing aid for Riste. In an individual lesson the occupational therapist offered him different ones, found out which one was most suitable for his posture and writing grip, and then we brought it into the classroom. Following her advice we use cushions for sitting in the classroom and include certain activities in the daily timetable based on the boy's needs in terms of sensory integration.

In his sports education lessons it quickly became clear that sport was one of Riste's areas of strength. He is highly motivated, driven, combative and quick to learn. So when designing the boy's interests (clubs) we planned to include him in a sports club which takes place once a week. He is also involved there with older pupils and his skills only come out more. Since other teachers and practitioners know that he likes sports activities and shows a keen interest in

football, we can use this behaviour as a basis for planning activities involving movement around the room (in Slovenian for learning to make propositions, in mathematics for counting and number recognition, in one-to-one lessons planning activities involving movement around the room with instructions to respond to suggestions).

Because of the boy's marked difficulties in language comprehension, it is also essential that his Italian teacher and I have the opportunity to work together as a team on an ongoing basis. To facilitate learning we make cross-curricular links whenever possible (e.g. in environmental studies and in Italian). In this way we try to increase the boy's chances of success. We also involve his individual teacher, who then helps him further in his learning.

CONLUSION AND THOUGHTS FOR THE FUTURE

Being a member of the expert team at our centre is certainly a big responsibility. Good communication, a high level of responsibility for each member of the team, carefully planned and balanced objectives according to the pupil's cognitive and motor development needs allow for his optimal development. It is also an advantage that we have a diverse team of professionals which allows us to expand the team to include professionals from other fields if necessary.

A MULTI-DISCIPLINARY INTERVENTION IN A CASE OF AUTISM: HOW THE TRIANGLE AMONG THERAPISTS, FAMILIES AND SCHOOL PRACTICALLY WORKS.

Fabio Regis

SUMMARY OF THE CASE

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects social communication and interaction, restricted and repetitive behaviors, interests and activities. Children with ASD may have difficulties in attention, reciprocal interaction, communication, and learning. In such cases, a multidisciplinary approach may be necessary to address the child's needs. This report describes a multidisciplinary intervention for a child with autism involving a pedagogist, a psychomotor therapist, a child psychiatrist, and a support for parents.

BACKGROUND AND CONTEXT

T., a 7-year-old boy, was diagnosed with ASD in 2018. The parents reported difficulties in communication, attention, and social interaction. The child was attending kindergarten, but his behavior was disruptive, and he had poor social skills compared to his age. He also had difficulty in playing with other children, and his lack of reciprocity was affecting his relationships with family members and caregivers.

In particular, he had problems while attending kindergarten that can be summarized as follows:

1. Communication: difficulty expressing himself, understanding language, or following verbal instructions. This resulted in a communication breakdown between the child and teachers or peers, making it challenging for him to participate in classroom activities.

- 2. Sensory Processing: sensory overload or under-stimulation, leading to behavioral problems or difficulty focusing on tasks. For example, the sound of other children's voices, the smell of lunch, or the bright lights in the classroom were overwhelming, making it challenging for him to engage in activities.
- 3. Social Interaction: struggle to understand social cues, read facial expressions or initiate social interactions. This resulted in social isolation, difficulty in making friends, and difficulty in understanding how to interact with peers or teachers.
- 4. Transitions: struggle with transitions from one activity to another or changes in routine. This resulted in anxiety, tantrums or outbursts, making it challenging for the child to adapt to the kindergarten schedule.
- 5. Self-Regulation: difficulty in regulating his emotions or behavior, resulting in tantrums, outbursts, or impulsivity. This made it challenging for the child to follow classroom rules and expectations, leading to behavior problems or social isolation.

PROGRESS AND EVENTS

The intervention started in 2019 and involved a multidisciplinary team consisting of a pedagogist, a psychomotor therapist, a child psychiatrist, and a support for parents. Each professional worked in their own setting, but they cooperated with each other to achieve the goal of improving the child's behavior and social skills.

Pedagogist: The pedagogist worked with the child in an individual setting to improve his cognitive and social skills. The pedagogist used activities to promote attention, communication, and interaction. The pedagogist also worked with the child's teachers to develop strategies for managing disruptive behavior in the classroom. She also used a combination of play therapy, social stories, and cognitive-behavioral therapy to address the child's difficulties in communication, attention, and behavior.

The Neuromotor Therapist worked with the child's family to develop strategies for managing behavior at home. He also used activities aimed at improving his social skills, reciprocity and self-regulation.

Child Psychiatrist: The child psychiatrist evaluated the child's medication needs and provided medication management as needed to address symptoms of hyperactivity and attention

deficit. The psychiatrist also worked with the child's family to provide psychoeducation about ASD and medication management.

Support for Parents: The support for parents provided support and guidance to the child's parents to address their concerns and improve their understanding of ASD. The support for parents also provided guidance on behavior management strategies and communication skills to improve the child's behavior and social skills.

In addition to these interventions, there are two other ones that characterize the "way of doing things" of Imparole.

Home-based intervention. In order to have a more effective impact and to be able to observe the child in an everyday situation, the family also agreed to an intervention at home, in which a pedagogue intervenes on the child and the family, promoting social skills, interactions with greater reciprocity and self-regulation.

This type of treatment is considered one of the most important, as it promoted significant changes.

Participation in intensive activities. These treatments are mainly indicated for children and young people with severe learning disabilities, cognitive fragility, autism spectrum and communication disorders, neurodevelopmental, behavioral or cognitive disorders. They are inspired by the intensive interventions originally developed by the Feuerstein Institute in Jerusalem and had a great impact on T.

With multidisciplinary interventions of thirteen hours per week (for a total duration of five weeks) during the summer period, T. was able to consolidate the acquired skills, thanks to alternating therapeutic interventions such as cognitive enhancement, psychomotor therapy and speech therapy.

Having an alternation of activities each day, enabled T. to learn to cope better with the complexity of the environment and to deal more effectively with the demands of the caregivers.

RESULTS

After 3 years of intervention, the child showed significant improvement in his behavior, attention, and social skills. The child was able to interact better with peers and family members. The child's disruptive behavior in the classroom decreased, and he was able to participate in group activities. The medication needs were adjusted, and he was able to manage symptoms of hyperactivity and attention deficit. His family reported a better understanding of ASD and improved communication and behavior management strategies at home.

CONCLUSION AND THOUGHTS FOR THE FUTURE

A multidisciplinary intervention involving a pedagogist, a psychomotor therapist, a child psychiatrist, and support for parents can be effective in addressing the complex needs of children with ASD. This is how Imparole works, considering the triangle among therapists, family and school the cornerstone of their everyday work.

The collaboration of professionals in different settings can provide a comprehensive approach to improving behavior, attention, and social skills in children with ASD. The intervention for the child in this report demonstrates the effectiveness of such an approach in improving the child's outcomes and quality of life.

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WHEN VOCATIONAL EDUCATION FOSTERS INCLUSION: AN ADOLESCENT WITH DOWN SYNDROME FACING NEW CHALLENGES AND OPPORTUNITIES

Fabio Regis

SUMMARY OF THE CASE

F. is a teenager with Down syndrome. He has been in Imparole's care for several years for a cognitive enhancement treatment.

We met him when he was attending middle school and we followed him in his transition to high school, at the age of fourteen.

At that time he decided to attend a vocational school in his area (he lives in a town not far from Milan), but after a while something started to go wrong. The inclusion that the parents expected did not go as planned and the family felt forced to find a different solution.

This case represents one of the many challenges faced by teenagers with special needs in Italy, despite the laws that protect disabled students and that give them the opportunity to study and work.

Luckily, it is a challenge won thanks to the tenacity and cooperation of all those involved in F's care.

BACKGROUND AND CONTEXT

F. came to Imparole with a request for cognitive enhancement that would give him the opportunity to express his full potential.

In high school, the main problem that emerged was the one regarding the interaction with his classmates and teachers. He was not properly supervised and he was not allowed to develop and maintain his acquired skills.

The therapist had no real interaction with the school, no factual briefings except for one in which the school apologized for the fact that they had too many pupils to follow. But all these explanations sounded more like excuses.

From the school's point of view, they could not follow F. properly because there were too many issues to deal with in that vocational school.

In Italy, vocational schools are shorter than the normal duration of other high schools (three or four years instead of five) and often the classes take in children who have a history of school dropout or other problems that make classroom management difficult.

For those unfamiliar with the Italian school system, there is a very clear distinction between State schools, which allow the access to university, and vocational schools, which give the possibility, at most, of obtaining a technician's diploma in one's field and not being able to access university. These kinds of schools are mainly funded by the local Regions and not by the State, and they are partially financed by the Social European Fund.

In theory, vocational schools should give young people the chance to learn in a more practical way (with many hours spent in the so-called "workshop") by giving them the opportunity of a different way of learning. These schools also play an important role in curbing school drop-outs for all those who are unable to study in a more theoretical and abstract way.

Very often, individuals with disabilities are referred to these schools because families are concerned about the future of their children. In this perspective, vocational schools are, in general, an opportunity for personal and professional growth, especially for children with cognitive weaknesses who, through many hours of workshop activities, are supposed to express their potential and increase job opportunities.

PROGRESS AND EVENTS

When he was attending the old school, the family reported to the therapist what follows: "The support teacher thinks our son cannot keep up with the school's organization because they change the timetable every five weeks and for F. this is not good" - they said. So, their conclusion is that he couldn't keep up with the school programme with this kind of timetable. Moreover, the fact that in that school there were many problems with other "challenging" boys, led teachers to the conclusion that it was not possible to follow him properly.

They were discouraged, angry and started to feel hopeless. So, the family decided to figure out what to do, to look for other, more inclusive schools for their son. This decision was definitely taken when they knew that, a few days before, F. was left alone in the workshop, not knowing what to do, ending up wandering aimlessly in the corridors.

The therapist emphasized the fact that the main vocational school's mission is to reduce school dropout by giving students the opportunity to learn differently. So, what the school did was not only wrong behavior towards a student with special needs but the teachers also misunderstood the most important goal of a vocational school.

So, the search for a new school began. They found another one with an identical curriculum to that of his school (the so-called "prep cook" curriculum, that trains students to become the professionals who assist in the preparation of dishes in the kitchen), not far from the current one.

The parents were initially doubtful, as the timetable structure was the same as at the previous school and F. would still have to face the same problems. Moreover, the class composition was larger and they were afraid he would have been left alone again.

Something different, however, happened.

As the school is used to receiving children with the most varied problems, the team of support teachers is constantly attentive to everyone's needs. So, F. found this environment more welcoming and more suitable for him. And, despite the large number of students, F. had in the support teacher an important reference for himself and his family.

Let's see what are the points that made F. felt more comfortable. It has to do with different factors:

- An inclusive school: as mentioned above, the new school is strongly characterized by the presence of pupils with special needs. By 'special needs' we not only mean disabilities but also social situations that require attention, such as minors followed by social services, school dropouts, a high number of pupils with learning impairment, and pupils who have to repay a debt to justice for having committed misdemeanors. This variety of difficulties over the years has convinced teachers that the concept of inclusion goes beyond that of disability. Inclusion is a mindset, a way of "doing things".

- A workshop teacher capable of listening to everyone: a vocational school is characterized by many hours spent in the teaching lab. F.'s curriculum is that of the prep cook, the cook who helps the chef in the kitchen. There is room for everyone in the kitchen, everyone can find the right place for him or herself, respecting his or her own time and abilities, strengthening the bond with others through teamwork. Thanks to the cookery teacher's skills, F. was able to find his own dimension and establish a cooperative relationship with his classmates.
- A headmistress specialized in pedagogy who is able to give inclusion a real meaning.
- **Presence of teachers with experience in special needs and inclusion**. Some of the teachers come from a different field because they are chosen among professionals who used to work as social workers with people or young people with disabilities or social issues. This is the real strength of that school.
- **Involvement of F. in events where students work in a real job environment**. As a vocational school, it has the characteristic of involving students in events where they work with catering and serving the public. F.'s current school, unlike his previous one, put him to work with his peers, giving him the opportunity to test and improve his skills.

CONCLUSIONS AND THOUGHTS FOR THE FUTURE

To assess the degree of inclusion, it is not necessary to look for specific projects or activities. Inclusion, to be true and effective, must not necessarily appear: it must be part of everyday life, without any particular actions planned beforehand. Even if to a stranger's eye it could seem chaotic and erratic, an inclusive environment gives students the opportunity to face complexity, if well managed.

Inclusion is a mindset that permeates the whole environment, an overall vision that punctuates the days and underpins everyday life. In this school, F. has found his place and his role, showing everyone that true inclusion is a win-win situation, a way to give everyone a learning advantage.

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An Adolescent with Down Syndrome Facing New Challenges and Opportunities. The Story of F." Fabio Regis Imparole Center - Milan, Italy	
Video - When vocational education fosters inclusion	
https://www.youtube.com/watch?v=S-qaG9Nsk4o	
or	
https://www.youtube.com/watch?v=QCRMZNz2tlo	

WHEN TINA CAN LEARN MULTIPLICATION...

The story of a girl's comprehensive change in learning capacity and behaviour.

Gunvor Sønnesyn

SUMMARY OF THE CASE

This case talks about a girl whose general learning difficulties was identified from when she was four years old. Her development and learning were supported by a multi-professional response team, and the local school psychology service. The latter recommended Nyborg's method for concept teaching to meet the needs of the child, The author of this case was asked to teach her, and the concept teaching model as operationalized in Grunnlaget booklet was applied to teach her basic concepts for analysing and generalizing, as well as concepts imbedded in school subjects Her comprehensive achievements through the school years was beyond the expectations, and there are reasons to interpret this to be a result of the method, and the cognitive processing it initiated. Today Tina is an adult woman, living in her own flat with her fiancé, going to work every day, and participating in leisure activities and social media in most ways like most of the population.

BACKGROUND AND CONTEXT OF THE CASE

Tina's learning difficulties was discovered in a routine visit to the childcare health service at the age of four, because of a very restricted vocabulary. She was immediately offered a place in kindergarten and had a support teacher working on her language. Her behaviour was rigid, with frequent flare-ups and outraging behaviour. At six, her difficulties were examined by the school psychology service. She never got any diagnosis, but her cognitive difficulties were found to be as unusual as 1 out of 1000. The school psychologist recommended special needs education including methods for supporting cognitive processing.

Before she started school at six, a response group consisting of a school psychology professional, who was the leader of the group, responsible teacher, headmaster of the school,

health nurse, physiotherapist, and speech therapist. There was additional support from the governmental support system (Statped). They worked with Tina on regular half-year basis until she was seven years. This was ended because Statped changed their focus from individual therapy to counselling local systems responsible for children's development and education. Their final report recommended no use of paper and pencil, because Tina opposed strongly to such activity. Her writing was supposed to be with keyboard instead of pencil.

This teamwork resulted in comprehensive scope of support for Tina at school. She had her own teacher for ten lessons a week, and a school assistant for the resting ten lessons. The first two years most of the additional teacher resources were used in a separate room, because Tina had severe problems with paying attention. She needed the teacher's full concentration, and no disturbances. The first year she saw the physiotherapist every week, later more irregular. The speech therapist worked with her pronunciation until the age of seven. Tina's parents were supportive for their daughter and cooperated well with the school.

PROGRESS AND EVENTS

For the cognitive processing the school put impact on teaching basic concepts, using Nyborg's model (Hansen, 2009; Nyborg, 1985a, 1993, 1994) as operationalized in Grunnlaget (Sønnesyn & Hem 1996, Sønnesyn, 2014, 2022). Tina's difficulties became evident; initially she was not able to generalize, to discover similarities and differences. As soon as the word similar was used, she was literally out of the situation. Still, she was able to e.g., identify different shapes.

Mental flexibility requires analytic coding processes, and different tasks were used to facilitate such processing through eight months during her second school year. Of course, such tasks were only a small part of the activities prepared for her.

Towards the end of the second school year, she was able to relate to similarities, and she could recognize that two circle shaped plastic chips with red colour were similar, and that two others; both with round shape, but with different colours, were similar in having round shapes. From this point it was possible to observe changes through time in learning, language, social communication, and behaviour.

Bridging between general transversal learning skills (cognitive prerequisites, executive learning, etc.) social/emotional learning and behaviour issues.

Learning transversal skills – in terms of cognitive prerequisites – demonstrated to be influencing her executive functions, as well as her social/emotional status and her behaviour.

Changes in social communication.

Before this, Tina was active on her own in breaks. She was found of carousel, hopscotch, swing, and just running around, always alone. Step by step, from the third year at school, she was addressing other children, and you could see her in chat with other children. You could also see her observing games activities, and when she got the point of it, she joined.

Changes in behaviour and emotional status

The outraging behaviour seen when Tina started school was exhausting for herself and for her teachers and assistant. From her second year at school, as she acquired more and more language, and became able to express herself, this kind of behaviour faded out through time. One way of explaining this could be considering the bad behaviour to be result of her emotional status when she was unable to understand what was going on, or she was supposed to change activity without knowing what was going to happen. From a rigid to a flexible way of handling new situations, seemed to come along with cognitive processing, and acquiring of new knowledge. The girl with a reputation of outraging and irrelevant behaviour became the most harmonious, happy with herself and with others.

Changes in learning capacity

The recommendation from Statped was not to put handwriting on her plan but teach her to use electronic devices. In general, there are small expectations about learning for a person with severe learning difficulties as this. The school decided not to create a "ceiling" for Tina, but rather to explore the possibilities related to <u>Grunnlaget</u> (Sønnesyn, 2022) and analytic coding experiences.

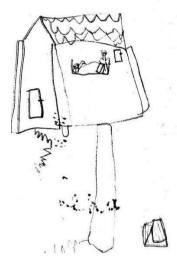
Drawing

Tina was never taught how to draw, instead the assistant had the function of being secretary. Whenever drawing was a part of the schedule, the "secretary" was drawing, Tina could decide

what to draw, and colour the drawing if she wanted. What happened when she had learnt



concepts about categories of positions of lines (vertical, horizontal, oblique), she started drawing spontaneously, initially at a low level. When she had learnt concepts about placement categories (on, in, above, under, besides, in the middle, to the right, to the left etc), this changed dramatically. Suddenly – without any specific "teaching how to draw" – she was drawing herself sliding down a slide, and her house and garden with correct details and placement of them. When she got "mental tools", she was able to do more than anyone expected.



Reading

Tina had a relative strength in successive processing, and she learnt technical reading skills her first year at school. She also learnt many songs, both the melody and the text. The problem was that she initially was not able to understand neither the words she read nor the content of the song text. This context proved to be another in which concept learning was crucial for

her; a key to understanding.

Handwriting



The school decided to follow the recommendation from Statped in the sense not to put pressure on handwriting. When sha had learnt mental tools in terms of concept about categories of line shapes, placements, positions, sizes, she was perfectly able to write. Her handwriting was better than what could be seen from several of her classmates, and most of the words had a correct spelling.

Mathematics

Tina learnt about symbols and became able to understand that digits and other math signs are symbols, they mean something. Learning concepts about the categories they all symbolised supported her learning, and calculation became quite easy for her. The school did not have expectations for her learning more mathematics than calculation up to ten, but Tina was not limited by that. She learnt to add and subtract across tens, both technically and with understanding. When she observed the classmates exercising multiplication tables, her question was: "When am I going to learn multiplication?" Who could then do anything but trying?

The context of the multiplication work was that of repeated additions. Definition of the concept could be multiplication is a category of calculation methods possible to use when

8 9 10

36 15 54 67 72 81 Kjetil legg 9 kuler i kvar pose. Kor mange kuler er det i Svar 27 kuler 3 posar 36___ kuler 4 posar kuler 2 posar 18 5 posar 45 kuler 6 posar 54 kuler 8 posar 79_ kuler

Tel med 9 om gongen.



several groups have the same number of items. This sounds complicated and would be impossible to teach by verbal explanations. The guide-book Grunnlaget has a brief presentation of how to teach a concept like this using the Nyborg model (page 137ff). In a case like this, many diverse tasks for each of the processes were necessary, using real

things as well as pictures. For some of the tasks Tina and the teacher together checked this by counting all the items, using the calculator and a multiplication table to control that it is true.

Tina exercised multiplication tables, and due to her strength, that was not the most difficult part for her. Whether she really understood and was able to use multiplication to solve problems was another question. To find out, she was given a task from a schoolbook, and the objective was the nine-table. The booklet shows this task, and her way of solving it, leaving no doubt about her understanding.

A later example refers to a situation in which there was visitors who wanted to see the concept teaching model in practice. The actual question was whether to teach Tina decimal numbers and decimal fractions. Contemporary receipts from grocery shops would have numbers with decimals, which provided a rationality for such considerations. The task

analyses took the teachers to concepts about the categories of wholes and parts of wholes as a starting point, and that became the first objective. The second was halves, conceived as the part you get when you cut something in two equal parts. There are a lot of real situations easy to create to teach the association between real halves and the term "half" (or "half part"); halves of apples, other fruit, buns, biscuits, sheets of paper, a stick, etc. Those halves possible to eat has a "built-in reward", which provides a positive emotional load to the task. It is equally easy to provide tasks requiring discrimination – identifying the half when it comes together with another kind of parts of the same category of wholes. A half apple together with a random piece of an apple – which one is the half part of an apple? And finally, after the number of examples required for the actual child, a question about similarities together with a half orange and a half piece of bread will support the generalization. "They are similar in being half parts would be a perfect verbal expression of the partial similarities and the generalization process we are working for. Fourth parts are equally simple to find examples of, and funny and rewarding to learn, which it demonstrated to be for Tina as well. The plan was to continue with tenths in the same way, but that proved not to be necessary. When Tina was given a string of ten squares (1x1 cm) of paper, asked to count the squares, and next to cut off one of them, she was ready to answer the question: "What kind of part is that?" She hesitated a little and answered with the intonation of a question: "A... tenth part?". This demonstrates a transfer far beyond what we had expected.

Geography

The teacher responsible for her geography lessons referred to a geography test given to the class in the sixth grade. The task was to recognise European countries in a map and write the name of their capitals into the map. He was quite surprised about Tina's achievement – better than several of her classmates.

CONCLUSION AND THOUGHTS FOR THE FUTURE

One could be tempted to think that the initial testing of Tina's abilities was incorrect. Her comprehensive needs for support through eight months to acquire the ability to generalize still could be considered to confirm this understanding. The correlation between the ability to generalize and analyse and learning capacities is supported in literature: (Craik & Lockhart, 1972; Hansen 2007; Nyborg, 1971; Nyborg, 1985c; Nyborg, 1993). Hansen (2007) found

significant changes in pupil's test scores in WISC, Raven and ITPA after systematic concept teaching of basic concepts and conceptual systems through two years in five of six cases. Several studies reported about changes in achievement beyond what was expected after having concept teaching according to Nyborg's model through a period in their first school years, or as intervention later (Aamlid & Hartveit, 1985; Bentze, 1985, 1994; Karoliussen, 1994; Seljebø, 1985; Stemre & Stemre, 1985; Sønnesyn, 1994). Our view is that the generalization process facilitated the analytic coding processes, important for coding in general, memory, flexibility, and executive functioning (Nyborg, 1985b). This method was applied to support learning for Tina, and what we saw was extensive changes in her learning abilities and achievement. The examples here could allow us to expect the same to happen for other children in severe learning difficulties if relevant teacher competences and sustainability is present. When Tina could learn to the extent she did, the same could be the case for 999 out of 1000 children.

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COGNITIVE SUPPORT FOR THINKING AND LEARNING: LINE'S CASE

Gunvor Sønnesyn

SUMMARY OF THE CASE

Line is a 11 year old girl, attending one of the local schools. The school seems to perceive her as a slow learner and has provided a limited curriculum for her. The mother sees a girl with a broader potential and works hard to help her daughter. She turned to Pedverket Resource Center for support. The case demonstrates how available research-based knowledge about how our brain works and about useful intervention frameworks can bridge support and successful learning of key competencies.

BACKGROUND/ CONTEXT OF THE CASE

Line was adopted from abroad when she was five years old. She came from an institution, a combination between orphanage and a home for disabled people. When she came to Norway, her developmental status was at the level of a one-year-old child. She did not have language, she could not make drawings, jump, run. But she had the will to move on, and step by step she caught up. A couple of months after arrival in Norway in November, she started in kindergarten and during the summer she was considered ready for school start in August, together with children at her age.

Shortly after school start there was a state of regression. She did not have the same progress as her classmates, and she resisted going to school. In the middle of the second school year, she was offered to change to the first grade. That turned out to be a good solution for her. She still had considerably language problems, and in the second half of the second grade she was referred to the school psychology service (PPT) and the National service for special needs education (Statped). The legal statement from the PPT recommended special education, but

was not too clear, neither in analyzing her needs, nor how to meet them both in the ordinary classroom and the special education. The assessment used was questionnaires and language tests.

Despite contributions from several levels in the public support system, they did not succeed over time to support Line's learning. Towards the end of school year four, her mother asked Pedverket Resource Center for support. For being able to tailor the intervention, there was a need of knowing her possible cognitive strengths and weaknesses, and he CAS2 cognitive Assessment System, the Norwegian edition was given (Das, Naglieri & Otero, 1994; Luria, 1973; Naglieri & Otero, 2018; Sønnesyn & Naglieri, 2011).

Line's PASS (planning, attention, simultaneous and successive) profile showed average scores except for successive. This uncovers a need for support when the learning objectives puts demand on successive processing, which it does in all beginners learning, and in skill learning in general. Line is perfectly able to learn if this need for support is met.

PROGRESS AND EVENTS

Impact was put on teaching the basic concepts and conceptual systems and other activities that could support analytic coding processes, to facilitate learning in general, and support successive processing. The matrixes below provides some details about Pedverket's approach to support Line, with reference to the relevant pages in the Grunnlaget book (Sønnesyn, 2022).

Learning objective	References	Content	Comments
Discovering	Pictures 1-3	From identical to similar in having red colours	OK progress. She was able to detect
partial	Grunnlaget, page 46 f		partial similarities and to make such
similarities	(Sønnesyn, 2022)		tasks for the teacher.



Picture 1. Look here! They are identical Picture 2. They are REALLY identical

Picture 3. They are not identical, but similar in (having) red color.

Learning objective	References	Content	Comments
Concepts of area shapes	Pictures 4-6 Grunnlaget, page 48-56 (Sønnesyn, 2022)	Round shapes, including oval shapes	Generalization Ok



Picture 4. Look at the dots. They have round shape(s)

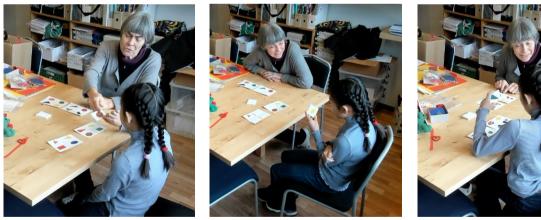


Picture 5. Look at this wooden butt. The lid has a round shape.



Picture 6. Look at this painting. Can you see any round shapes in it?

Learning objective	References	Content	Comments
"Test" of several basic concepts	ANNA games, lotto game for analyses Pictures 7-9 Grunnlaget, page 11f (Sønnesyn, 2022)	Games displaying area shapes, numbers, line shapes (curved & straight lines)	She new area shapes, easily learnt straight line shape and curved line shape when taught according to Grunnlaget.

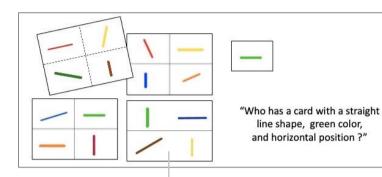


Picture 7. You said it perfect! It has a round shape and a brown color.

Picture 8. "It has yellow color and a round shape"

Picture 9 . "Who has a triangle shape , green color? "

Learning objective	References	Content	Comments
Position concepts (vertical, horizontal, and sloping)	Grunnlaget page 69 ff (Sønnesyn, 2022)	Vertical position horizontal position& sloping position	The words vertical and horizontal was demanding, easier when they were "written on the wall".
Use of words vertical position and horizontal position		E.g. "Who has a straight line shape, vertical position, red colour"	Line managed to find the correct figure, and she also managed to draw a card and ask the questions She needed the words on the board.





Picture 11. It was helpful for Line to have these words available in the room.

Picture 10. The ANNA game (4). The verbal description is the key to find the
correct picture. To get the card	the figure must be described verbally be
shape, color, and position; the	order of the properties is free.

Learning objective	References	Content	Comments	
Learning the concept of symbols	Grunnlaget, p 100 Pictures 12-14	other symbols used to be the meaning of the word	When she knew the meaning of the symbol, she became good at classifying symbols, but she did not always understand the meaning of symbols usually recognized by children her age.	



Picture 12. Look at the color of the milk cartoon. What kind of milk is it? When the color has a meaning i tis a symbol.

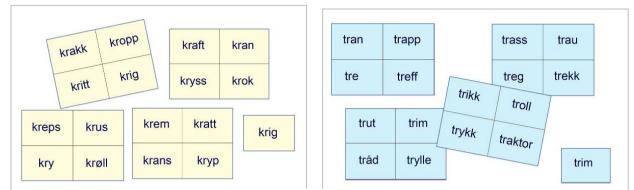


Picture 13. "Look at the word. Does it mean anything?" "Yes, it means sun!" "When it has a meaning, it is a... " "...symbol".



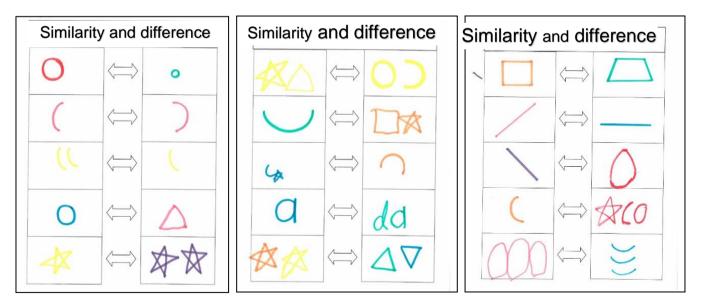
Picture 14. "YESS! Great! You said it! The traffic light colors and the digit 5 are similar in being symbols!"

Learning objective	References	Content	Comments
Orthographic reading	Grafem, lotto and memory games Pictures	16 words starting with the same combined grapheme	Useful for automate identification



-Picture 15 – 16. Lotto game to exercise automate coding of combines graphemes. The same words are possible to use for a memory game. This game functions very well to learn these combined Graphemes, and it is exciting to see children to transfer to other graphemes as well.

Learning objective	References	Content	Comments
Analytic coding	Matrixes for discovering and verbalizing partial similarities and differences	Figures easily recognized, and easily analyzed	Supporting directed attention and awareness



Pictures 17-19 Analytic coding – identifying similarities and diferences. Such tasks are flexible, allowing the teacher to highlight properties or aspects importante for the student. Here, the categories of shapes are demonstrated in several

The Grunnlaget methodology was used, based on the Nyborg concept teaching model (CTM), as described in the Grunnlaget (Sønnesyn, 2022). The lessons included other activities, like relevant curricular tasks.

Line's mother could very quickly see changes. Line became more verbal, she was more able to pay attention to details, and more interested in the world around her (video interview).

In this case the school did not pay attention to the information and recommendations from Pedverket Resource Center. Their perception of Line was general learning difficulties, and in the fifth school year they gave Line a math-book with a limited curriculum. Their idea was e.g., not to include her in the teaching of fractions. The advice from Pedverket was to include her in the teaching, but to consider her cognitive needs, and teach in ways supporting her use of the other processes, diminishing the demand on the successive process. Mother was concerned about this and like for other curricular tasks she taught her daughter at home.

Line herself resisted when the school expected her to do the same tasks again and again. Her mother took actions and made sure she got work to do that took her forward and supported her learning.

CONCLUSION AND THOUGHTS FOR THE FUTURE

Line's pattern of cognitive strengths and weaknesses showed average prerequisites for learning, except in areas requiring successive processing. Language learning puts huge demands on successive processing, and so does counting, number facts and algorithms in mathematic. Hence, for Line it was important to ease the burden for the successive processing, allowing her to rely more on the other processes.

The PASS theory distinguishes between cognitive processes and the knowledge base, like several other approaches (Bressler, 1999; Fuster, 2003, 2022; Hansen, 2006; McNamara, 1994; Nyborg, 1985, 1993, n1994; Sønnesyn, 2008, 2022).

This analysis is significant for the understanding of intervention and support. In general, the intervention will most often be directed to a relevant goal for the child or adolescent. In preschool age, this will typically be skills related to oral language, communication, and social interactions. For children and adolescents such goals will be extended to comprise curricular objectives. For Line, the case was that her knowledge base could not possibly have the same

scope and depth as that of her classmates, given her short time in the Norwegian language and culture context. What her peers had learnt through their ten years of life, she could not possibly catch up with in a couple of years. To ease her processes, it would be relevant to work for knowledge base content, general in the sense of usefulness for thinking and analyses. The basic concepts and conceptual systems highlighted by Nyborg has this kind of general function in facilitating processes like perception, classification, executive functioning, memory recall (Craik & Lockhart, 1972; Hansen, 2006; Nyborg, 1971, 1993, 1994; Sønnesyn, 2006, 2008, 2014, 2022).

Our understanding is that Line can learn like other children, if the teachers consider her specific learning challenges and teach in ways allowing her to use her best processes. This case also demonstrates the importance of the knowledge base on which the processes operate (Das, 2020; Das et al., 1994; Fuster, 2003; Naglieri & Das, 2005; Sønnesyn & Naglieri, 2011). The teachers will have to consider that Line has had a lot to keep up with since she came to Norway, and not take for granted that she has all the same knowledge as her classmates, who has been nourished in the language culture since they were born. When teaching concept about the category of symbols, we recognised that several of our examples was not helpful like they use to be. Line simply did not understand the meaning of the busstop sign, the colour of the milk container, the logo of common shops which can be found in the local environment. This does not mean that she is not able to learn, it just reveals that she has not yet learnt the knowledge needed for such tasks. To take her needs into account it is necessary to consider both the knowledge demands and the process demands embedded in curricular tasks and in the development of social and communication skills. This case gives an example of how the basic concepts and the basic conceptual systems, as part of a person's knowledge, and knowing the person's typical pattern of cognitive strengths and challenges are important in designing helpful intervention (Sønnesyn 2008, 2011; Sønnesyn & Naglieri, 2011, 2018).

In this case a comprehensive part of the support systems embedded in the public school system was involved in supporting the teachers, the mother, and Line herself. Still, the mother after a lot of struggle and frustration decided to try to find support outside the public system. We suggest that the understanding of Line's pattern of cognitive strengths and weakness has been crucial for the possibility to support her learning. In the ideal world, this support should

have been available in the school system. Knowledge about the cognitive processes and their relations to the academic skills, as well as social and communication skills, should be present at the school level, and to an increasing degree in the support systems both at a local level and in regional support systems. Norway has a long and proud tradition of inclusive education. Still, a case like this suggests a need in the system to work for educational practice based on sustainable theory as well as the broad scope of methods added to our common worldwide knowledge during the last 50 years.

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REASONABLE ACCOMMODATIONS FOR PETER

Beno Schraepen

SUMMARY OF THE CASE

Peter is 9 years old and a special needs student with Down's syndrome. The film follows Peter during his first year at a public school. He was previously in a special needs school with autistic and other special needs students. An individual with intellectual disabilities can face many barriers in not only their academic life, but also their social life. Peter faces several barriers to his successful inclusion in the classroom. Several accommodations will be needed to adapt the learning environment and materials to guarantee that Peter can learn in an equal way as his peers and experience success in school.

REASONABLE ACCOMMODATIONS AS A CONCEPT

"Reasonable accommodation" means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms" (UN General Assembly, CRPD, art 2)

'Reasonable accommodations' is a concept (didactical, pedagogical and juridical) to overcome barriers in learning and participation by adapting the environment, the lesson, the learning material, the assessment, ... or by providing tools, support, or resources to overcome these barriers. (APA, 2012)

Reasonable accommodations have two goals:

1. To provide a context for learning, create the conditions for the child to learn, that he/she can learn and participate equally.

2. To provide a context that the learning becomes visible, create the conditions that the learner can show that he/she learns.

Reasonable accommodations can be evaluated on the following criteria (UNIA, 2019):

- 1. Improvement:
- a. it improves and enhances the learning & participation of the learner,
- b. it improves the teaching,
- c. it improves communication and relationships between learner, peers, and teachers.
- 2. Equality
- a. it enables equal use of alle facilities,
- b. it enables equal participation to the learning activities,
- c. it enables equal status between peers.
- 3. Autonomy
- a. it enables to carry out learning activities as independently as possible,
- b. it enables peers to interfere and interact in the most autonomous way,
- c. it prevents isolation of the learner from the group
- 4. Safety
- a. it enhances safety as a precondition for learning,
- b. it creates safety for peers to interact and support each other,
- c. it enhances the competence of the teachers, so they feel safe, secure, and supported.

FROM BARRIERS TO SUPPORT NEEDS

To define support needs we must analyse the learning environment and detect the barriers in learning and participation. These barriers arise from in the interaction between the specific characteristics of a child and the characteristics of the learning environment.

We must consider that support needs are contextual. What are the needs of the learner in that specific classroom with that teacher or within that specific teaching context. Addressing support needs of one child is about creating a better learning environment for the other children and the teacher. (Schraepen, 2019)

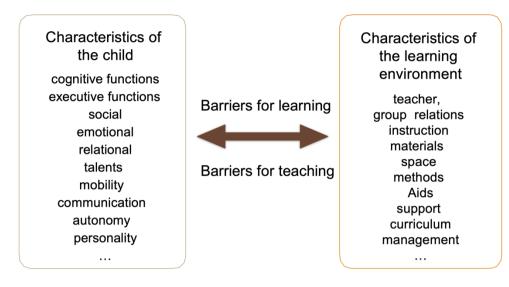


Figure 1 Framework for defining support needs

Within a context of good education, reasonable accommodations are developed or provided on the individual level specific for that child. When we have reasonable accommodations for more than 10% of the children, we should reflect on the universal design of the learning environment. (Schraepen, 2019)

SOME EXAMPLES

The following examples of reasonable accommodations come from the daily practice of Belgian mainstream schools that accommodate pupils with disabilities. We distinguish three forms of reasonable accommodations. (UNIA, 2017)

1. Adaptations to the school and classroom environment

In many situations, one can adapt the school organisation, or also the way the school building is used.

- Julie is allowed to enter the school through a smaller entrance to escape the crowds at the main entrance. She has anxiety attacks and does not feel comfortable when she uses the main entrance. She is allowed to take her written exams only in a separate room instead of in the refectory or gymnasium because large rooms make her anxious.
- Natasha is studying journalism. She has ADHD and is easily distracted by outside stimuli. This is why she can take her exam in a quiet exam room to minimise distractions.

- Brandon has excessive movement urges and can go to an adapted corner in the classroom to rest from time to time.

2. Adjustments during lessons

Teachers can meet a pupil's support needs by providing extra help and instruction, adjusting lesson planning, adjusting expectations, and providing an individually adapted curriculum and so on.

- Nele is deaf and uses Flemish Sign Language. She is studying for primary school teacher and later wants to teach deaf pupils. To replace the course units French and Music, she is taking the subjects Flemish Sign Language and Deaf Culture so that she can become a good deaf teacher.
- Ali, a boy with an intellectual disability, is in the first class of a primary school. When the teacher addresses Ali, she uses short sentences with simple words. She gives him only one instruction at a time and often works with pictures. Every morning, she presents the daily program with pictograms (reading, playtime, lunch, crafts ...).
- Arif has autism. For him, assignments are announced on time and explained in a clear way, both orally and in writing.

3. Accommodations to support the pupil

Adaptations to examination questions, assignments and so on can also meet a student's support needs. In turn, aids allow pupils with disabilities to be better involved in class activities.

- Younes has a mild intellectual disability, because of which he has problems with decimals in arithmetic. Therefore, Younes does the same sums with rounded numbers and at his own pace.
- Lola cannot write and has difficulty speaking. While the other pupils are doing their tests in writing, the teacher tests Lola using multiple-choice questions to which she can answer orally. The teacher can tell from Lola's reaction which answer she has chosen.
- Eva has dyscalculia. In class, she is allowed to use a calculator and a formulary, and she gets extra time for tests and exams.

CASEWORK: EDUCATING PETER (WURTZBURG, G., 0:30)

(https://youtu.be/3bI-igJFt_k)

Part 1: Film fragment 0:00 - 9:00

At the beginning of the film, the other students in Peter's class are very negative towards Peter' arrival. They thought he, "looked different" and he "scared" them. A student comments that, "he's probably not going to learn anything." Peter is also very physical towards the other students in the class. He pushes or kicks other students, and his behavior is very inconsistent and unpredictable. What are the triggers?

Peter experiences several barriers in participating in the class and learning activities.

Defining support needs is an inclusion issue.

What goes wrong? Why?

What are the barriers for Peter?

- Does Peter understand that there are expectations?
- Are these expectations clear for him?
- Is he learning? Is he participating in an equal way?
- In what way is hey challenged to learn?
- Are the preconditions present to build relationship?

- ...

What are the barriers in the environment?

- How is his relationship with his peers?
- How do his teacher and peers interact and communicate with him?
- What are elements in the environment that create safety and structure?
- What are the accommodations in the classroom, physical space, class management, learning activities, learning material, ...?

- ...

What goes well?

What works?

Part 2 from 9:00... to end

What reasonable accommodations are provided for Peter to learn and participate? What reasonable accommodations are provided for Peter to show that he learns? Do you see material or/and immaterial accommodations?

The teacher's main goal for Peter is to make him a part of the classroom.

Peter's teacher, while worried at the beginning of the year because of Peter's frequent outbursts and physical abuse of other children has a belief that all children can learn. This belief pushes her to expect great things from Peter concerning his learning. She pushes him and expects him to do many of the same things that the other children are doing in her class. Within the next few months Peter becomes more adjusted to the school day, and he has fewer outbursts. The teacher then started to create new goals for Peter to see what else he could do. She changed her expectations of Peter, and tells him things like, "I expect you to do this because I know you can."

One way the teacher supported Peter was by differentiating the work as an accommodation. Differentiation means changing the instruction to meet the individual needs of the students. Teachers can accommodate or adapt the content, process, products, or the environment to meet the needs of the students. For example, in one activity Peter sits next to another student who can help him complete his work. He orally stated what was in the pictures that he had glued down, and the other student writes it down for Peter.

One of the teacher's main goals was to make Peter a part of the classroom. Progressing the school year, Peter becomes more involved in the class and with his peers. The other students are helpful and patient with him since day one. They never fight back at Peter if he pushes, and never raise their voice at Peter. They are respectful to Peter and remind him that "we don't hit," or "I don't like that, please stop." It is surprising that the students remained patient with him, and they all help him to understand what he should be doing.

Other teachers in the classroom are an asset to the classroom and to Peter. It could be very beneficial if they were. Collaboration is important to share ideas, be on the same page for lessons, and to exchange ideas. By collaborating with other teachers, or Peter's parents, or other professionals, the general education teacher could have used this information to help best support Peter in the classroom.

Peters' barriers for successful inclusion are for him to act acceptably in social situations, to talk, to read, and to be able to function successfully in each class. Some of these barriers are overcome. For example, Peter learned to speak, learned to read at a minimal level, and he headless tantrums in the classroom.

When the last few months of school come around, the student's attitudes towards Peter change dramatically. One student says, "He changed because we changed, we changed our minds about him, he changed because we helped him." Another student said, "you think you're teaching Peter things, but really, Peter is teaching you things." On the last day of school, the students were proud of Peter, and really accepted him as a friend, and wanted him to be a part of their future class, and a part of their lives.

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ELZA IS OVERLOADED

Beno Schraepen

BACKGROUND INFORMATION

Leza grows up in a warm family and is the youngest of three children. She has two brothers. Her parents, her brothers and by extension the family are very caring, but also constantly challenge her in daily life. In addition, she is also very driven and sets high standards for herself. Elza's mother tongue is Arabic, but she speaks Dutch fluently. Dutch is the home language within the family.

Elza realizes more and more what her disability entails and where it limits her, which occasionally leads to frustration. Despite this, she is very happy and is enthusiastic about life.

She currently dreams of opening her own clothing shop later. She has her own laptop with the necessary software that enable her to work independently.

Medical classification: Left hemiparesis due to a porencephalic cyst frontal to the right of the brain. Elza takes medication for epilepsy, which is under control.

Elza is 9 years old and in second grade of the local primary school. The parents wish Elza to follow the common curriculum for as long as possible. However, they recognize that this may eventually no longer be feasible for Elza in terms of quantity and workload. If the common curriculum no longer works out, they would like to keep her in mainstream education for as long as possible, possibly with an adapted curriculum. The parents already have possible avenues on how to approach this.

TEAM MEETING

Present: Teacher, support teacher, psychologist from the child guidance center, parents

What are the barriers for Elza in the classroom?

Concerning general tasks and demands:

- Due to the many efforts Elza makes, she is tired quickly.
- Planning, organization, and structure are difficult.

Concerning learning and applying knowledge:

- Elza is very driven and puts in a lot of effort which, so far, allows her to keep up well with the learning material. She performs above average of the class.
- Due to a spatial-visual disorder, geometry and exercises on spatial insight are difficult though.
- Elza's epilepsy has a negative impact on her concentration and processing of information.

Concerning mobility and psychomotor functioning:

- Elza has mainly motor problems due to a left hemiparesis. This makes it difficult(er) for her to step and makes it more difficult for her to manipulate things with her hands. (She mirrors with her right hand what her left hand does).
- Moving around is less smooth, slower for Elza, but provided some extra time, these are not a problem. For longer distances, getting out, ... etc, Elza needs a wheelchair.
- Participation in sports and games with peers depends on the activity.

Concerning communication:

- Elza communicates fluently. However, because of the brain injury, there is reduced impulse control and Elza is less inhibited in her utterances (she says what she thinks).

Reasonable accommodations?

What accommodations and adjustments to the learning environment are necessary and/or desirable? After sharing information and discussion about what works and what doesn't the team agrees on the following.

- General
 - o A laptop, printer, and adapted software to replace writing.
 - o She can work with adapted page layout, also for worksheets and tests.
 - o When concentration lapses, Elza can relax for a while (e.g. reading a book).
 - o The number of exercises to be made and the pace at which this should be done may be adapted to Elza, if necessary.
 - Buddy system: In the classroom, a buddy is appointed via a rotation system to give
 Elza some help and guidance. Thus, social relationships are created and maintained
 through 'caring for'. This is important for when the support teacher is absent.
- Planning and organization
 - o Elza can use a daily schedule.
 - o Elza's diary is filled in by the teacher.
 - o Changes are communicated so that there are as few surprises as possible.
 - o Home tasks and tests are announced within a reasonable time.
 - Gymnastics and swimming lessons try to be scheduled just before or after the lunch break, or during last hours of the day because participation is not always possible.
 These times can then be used to build in extra rest.
- Language and reading:
 - o Elza may use an aid (schedule) to give a speech.
 - o Elza may use a follow-along chart when reading.
 - o Texts of reading comprehension are read in advance at home.
 - When grading writing assignments, more attention is given to content than to spelling and sentence structure.
 - o Elza is allowed to use rule cards and an electronic dictionary.

- Mathematics Number knowledge, operations, and applications Geometry:
 - Elza may use control charts, a calculator and a laptop with adapted software including GeoGebra.
 - o Elza may/must write down intermediate results/intermediate steps.
 - o The number of exercises to be made and the pace at which this should be done will be adapted to Elza if necessary.
 - o Elza may sketch and verbally explain a geometric construction.
 - o Margin for drawing and measuring is set at 0.5 cm and per 5 degrees.
- Geography:
 - o Elza may use a colored 'blind' map so that she can see the boundaries better.
 - Gym and sports:
 - o Elza takes substitute physiotherapy or makes a substitute assignment.
 - o Elza is assessed on her effort and not performance.
 - o Assignments are adapted so that Elza can participate (taking epilepsy into account).

- Test situation:

- o She can work with an adapted page layout and on computer.
- o The teacher may point out during tests if exercises have not been made and offer the possibility to continue working.
- o Tests can be made in a quiet place, possibly out of the classroom. Elza may read the question aloud and solve it aloud if she wants to.
- o Evaluation is not only about the arithmetic errors but also quote the arithmetic strategy.
- Tasks and responsibilities
 - Teacher and support teacher provide the necessary accommodations regarding the full participation and learning of Elza

o The parents and Elza will take these accommodations into account for school related work at home.

Evaluation?

- after one month

REFLECTION

When we look at the process and the accommodations provided, we can make the following observations:

- How are the strengths or talents of Elza taken into account in this process?
- How are the strengths of the teacher taken into account?
- What accommodations decided for Elza can these be of use for other children?
- What accommodations can be part of universal design and become part of the daily learning environment?
- Do we need to talk about or explain these accommodations to the other children?

ACCESSIBILITY IN THE UNIVERSITY? HOW TO DO THAT?

Maria Concetta Carruba Mariateresa Cairo

SUMMARY OF THE CASE

The chapter introduces the matter of accessibility in university context. In the first part the authors point the attention on the idea of accessibility thought the presentation of what is accessibility and how is it possible a practical application. It is exposed a life story of Greta. The methodology used for the interview is narrative and biographical. It is underlined the importance of the right of study in the high education as a long – life project for disabled people. As the European indication (Lisbon Declaration, 1997 and Bologna Declaration, 1999) the high education must be an accessible opportunity for all young people who want improve your knowledge, ability and reflection capacity to obtain life and job skills. The educational and career guidance and the supply of a global environment without barriers and with facilitators and tools (friendly and flexibility programmes, specialized and available teachers and accessible technologies, formats and materials) are the condition for inclusive education and the participation of the all students. Teachers and professors must be trained to adapt their teaching to students with different health conditions, learning profiles and socio – cultural backgrounds.

THEORETICAL FRAMEWORK

What's the meaning of Accessibility? Before talking about universal accessibility tools, we need to clarify that "accessibility" is:

- 1. the quality of being easy to approach, reach, enter, speak with, use, or understand;
- 2. the quality of being usable, reachable, obtainable, etc;

3. the quality of being suitable or adapted for use by people with disabilities and with learning difficulties.

Practically, Accessibility is:

- a. Break down of architectural and communicative barriers (architectural, physical and urban, sensory and perceptual, localization, socio cultural and communicative barriers);
- b. Use of aids, new technologies (assistive technology) (GATE, Global Cooperation on Assistive Technology, in https://www.who.int/initiatives/global-cooperation-on-assistive-technology-(gate)) and language (Braille, AAC, Sign language...) (CRPD, 2006)
- c. Universal Design for All (UDL framework and Guidelines) (CAST, https://publishing.cast.org/catalog/books-products/universal-design-for-learningmeyer-rose-gordon)
- d. Educational Differentiation based on Tomlinson's model.

Accessibility, based on the CAST point of view, is shaped by what we need to do, our interactions with the environment, and our personal preferences. Educational materials and technologies are "accessible" to people with disabilities if they are able to "acquire the same information, engage in the same interactions, and enjoy the same services" (Joint Letter US Department of Justice and US Department of Education, June 29, 2010) as people who do not have disabilities.

CAST is the Centre for Applied Special Technology in USA (https://www.cast.org/about/about-cast).

CAST's mission is to transform education design and practice until learning has no limits. Located near Boston, CAST is a no profit education research and development organization that created the Universal Design for Learning framework (https://www.cast.org/impact/universal-design-for-learning-udl) and UDL Guidelines (https://www.cast.org/impact/udl-public-policy).

The correct way to understand the concept of Accessibility keeps in consideration the contribution of CAST.

The questions are:

• Are tools, environmental settings, processes or approaches accessible? And then:

- To whom are they accessible?
- Under what conditions?
- For which tasks?

When we talk about accessibility, we need focus on:

- Accessible educational materials;
- Accessible formats;
- Accessible technologies;
- Assistive technology.

Differentiating instruction means that the teacher anticipates the differences in student's readiness, interests, and learning profiles and, as a result, creates different learning paths so that students have the opportunity to learn as much as they can as deeply as they can, without undue anxiety because the assignments are too taxing—or boredom because they are not challenging enough. Differentiation can look very different in various classrooms because teachers use numerous strategies and tools to instruction. Regardless of the specific combination of techniques, however, effectively differentiated classrooms share several key characteristics:

- 1. Differentiated instruction is proactive.
- 2. Differentiated instruction is more qualitative than quantitative.
- 3. Differentiated instruction is rooted in assessment.
- 4. Differentiated instruction provides multiple approaches to content, process, product, and affect/learning environment.
- 5. Differentiated instruction is student-centred.
- 6. Differentiated instruction is a blend of whole-class, group, and individual instruction.
- Differentiated instruction is "organic." Teaching constantly evolves through collaboration between students and teachers, which includes setting class and individual goals. (Tomlinson, 1999; Tomlinson, 2008; Tomlinson, 2013; Tomlinson, 2014; D'Alonzo & Sala, 2023)

FROM THEORY TO PRACTICE

When Educational materials could be accessible?

INCLUSIVE EDUCATION: A CASEBOOK FOR GOOD PRATICES

Educational materials created by UDL approach, allow to create material, in different format (print, digital, graphics, audio), that are designed or enhanced in a way that makes them usable across the widest range of learner's need, including learners with disabilities.

What about the formats?

There are several different formats to provide the same information in another way to address the barriers traditional materials can present for some learners. Examples of accessible formats include audio, Braille, large print, tactile graphics, and digital text conforming to accessibility standards.

When technology solutions could be defined as accessible?

When technologies such as hardware or software are universally designed, have a common setting which permits accessibility. Nowadays more technologies are created by this approach and in the setting area, the disabled people can manage the views option, add accessible fonts, manage the audio input, and reduce the motor skills necessary in using the tools. They are technologies for all but customized based on the customer's needs.

What about Assistive Technology?

When technologies are designed to address specific barriers for learners with disabilities, they represent an assistive technology. Examples of assistive technology are the text-to-speech tool, screen readers for visual impairments, and speech recognition. Assistive technology is created to reply to a specific need. These tools are for a specific customer. Nowadays the debate around this topic focuses on the possibility to create digital tools designed for everybody.

BACKGROUND AND CONTEXT: INCLUSIVE EDUCATION AND ACCESSIBILITY IN UNIVERSITÀ CATTOLICA DEL SACRO CUORE AND THE NETWORK OF CNUDD (ITALY)

"The Catholic University is an academic community that contributes to the development of studies, scientific research, and the preparation of young people for research, teaching, public and private offices, and free professions. The Catholic University fulfils these tasks through adequate higher education and education informed by the principles of Christianity,

respecting the autonomy proper to every form of knowledge, and according to a conception of science at the service of the human person and of civil coexistence [...]" (Art. 1 paragraph 2 Bylaws of the Catholic University).

This is the incipit of the first article of the Statute. The academic community is engaged in the task of formation. Welcoming the student to the Catholic University means initiating with him and for him a project to promote himself and his personal fulfilment. This focus applies to everyone, no one excluded: the University is first and foremost a context in which and on which to work to ensure an inclusive experience, as the WHO indicates in the ICF, International Classification of Functioning and Health. Also in the Vygotskian vision, learning is a socio-educational process that requires the co-presence of several figures and is established within a precise context that may be more or less functional to the process itself. The athenaeum accepts these directions and makes them its own.

The presence of the Inclusion Service, from 1999, is renewed in the choice of proposing a well-structured pedagogical approach oriented toward an inclusive horizon. The activities promoted by the Integration Service, in full compliance with the Statute of the University, aim to prepare the necessary measures to guarantee the right of students with disabilities and with DSA to actively participate in cultural, educational, and research activities as well as to benefit from the University Integration Service by identifying effective facilitators and eliminating barriers to learning or reducing their negative impact.

In Italy, THE CNUDD (Conferenza Nazionale Universitaria dei Delegati per la Disabilità) has been working since 2001 as an instrument capable of representing the policies and activities of Italian Universities towards disabled students and issues related to disability. The Legge 17 of 28 January 1999 (Integration and amendment of the Legge-quadro of 5 February 1992, n. 104, for assistance, social integration and the rights of disabled people, published in the Gazzetta Ufficiale n. 26 of 2 February 1999) has issued specific directives to Italian universities creating the figure of the Delegate for disabilities, mandatory in each university, providing specific directives regarding the activities to be carried out in favour of disabled university students and providing for the disbursement of funding in a specific chapter of the FFO (Fondo di Finanziamento Ordinario).

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Each University is required to provide services for the integration of disabled students, among which the Law provides for the use of technical and teaching aids, the establishment of specialized tutoring services, as well as individualized treatment for passing exams. In each university, the Rector's Delegated Professor for Disabilities carries out the functions of coordination, monitoring and support for all the initiatives necessary for the integration of disabled students within their own university.

The main purpose of the CNUDD is to allow the exchange of information and experiences between the various universities and to share some guidelines for the activities of all the universities by activating the services necessary to implement the regulations envisaged by the Legge 17/99 and trying to respond in the most appropriate way to the needs of disabled students in their university education.

The CRUI (Conferenza dei Rettori delle Università Italiane) has expressed its full willingness to collaborate with the CNUDD as the coordination instrument of university actions in favour of disabled students (<u>https://www.crui.it/cnudd.html</u>).

CASEWORK: THE STORY OF GRETA

This section will report one story, an interview of a student with disabilities, and mediation actions for breaking down cultural and learning barriers experienced. The story is taken from the text: D'Alonzo (2021) "Vite reali: la disabilità tra destino e destinazione" ("Real lives: disability between destiny and destination"). In this book it is possible to read some interviews to young people with disability, their life experience and their careers in the Italian school and in university.

Greta is a 28-year-old visually impaired young woman. She was born in Milan where she lives with her parents, two older sisters and her grandmother. As a child she fell ill with a hereditary autoimmune disease which forced her to frequent operations (especially on the eyes) and long periods in the hospital. In addition to eye problems, there are other physical pathologies, which in some periods make her life very difficult and painful. These frequent hospitalizations and the surgical operations to which she is subjected are a strong and intense memory. The frequent absences from school are compensated for by the presence of two attentive and very present parents who support her and by the possibility of attending the typhlo pedagogical consultancy centre of the Instituto dei ciechi in Milan, where she is helped with specific educational aspects, books of text transcribed into Braille and other didactic material.

Despite the many sufferings, she presents herself to the interviewer full of confidence and joy, positive and a lover of nature, reading, music and figurative art (fashion in particular). She likes to study:

Q: Make an introduction of yourself, liberally.

G: My name is Greta, [...] I have two older sisters, so I am the runt. I love the element of water in general; I love reading so much; I love to learn about anything - I'm an extremely curious person about the world around me, but most of all, I'm curious about people. I would say that I also really like art and music, even the more aesthetic part [...] as a result of my personal story. I can perceive, according to my possibilities, figurative art, especially the dimension of fashion, which is a more modern part of figurative art. I enjoy the world of fragrances, which, I must say, by olfactory election, is one of the senses I have most developed. As a child, I had a hereditary disease that led me to have many surgeries, to be hospitalized a lot, and to almost completely lose my sight. I can't see almost totally anymore: something is left, but very little. Health is something I care a lot [...]

Greta recalls her first eye operations:

Q: Is it a feeling [the consciousness of diversity], then, that has always accompanied you? Did you feel it within yourself?

G: In fourth grade [into primary school], I had very heavy eye surgeries because of a haemorrhage of the choroid, the part in front of the retina - a very delicate area to operate on. They had to operate on me so many times and I was also absent from school for several months. That time, for a while, I was really in the dark; I had to be very careful and only put myself in certain positions. When the choroid came off, which was also a very painful event, for several weeks I experienced darkness [...]

Q: You can say "I was in the dark" because you were seeing it before. Is it, at that point, that you became aware of it?

G: I can say that because at that point I became aware of the darkness, a darkness that, it may seem a paradox, I had never seen. Not seeing the light for me was the thing that made me most aware. I always told myself that what I wanted to be able to see was the sunlight and the setting sun. The first words I said to the doctor before my surgery at Monza Hospital was that I hoped to be able to see the sunset again. "I hope I can please you. I'm not telling you that I can get you back the way you were, because you had a bad haemorrhage," he told me. The promise of the setting sun was fulfilled, and I was delighted. When I then went back to school and also had to start using different tools, typhoon-technical and typhloinformatics (I used to read enlarged, but at that time I switched to computers) there was perhaps a determined transition to the world of disability. It was there before as well, but that moment represented a radical change [...]

Q: Going back to the use of typhlotechnical tools, it is very interesting to point out your achievement of greater awareness. What memories do you have?

G: Thinking back to primary school, for example, it was immediately obvious how different I was from the others: I was the only one in the class who used a computer, the only one, above all, who had to learn Braille, [...] all that instrumental apparatus cost me a lot of effort. "My goodness! I have to!" I used to say. Braille was hard, but at the same time it intrigued me. Instead, being able to write on the computer, being able to use speech synthesis, and being able to read things back, was a relief both in terms of time and effort. I used to struggle so much for reading, partly because of the amount of clinical eye surgeries I had undergone. In the beginning, reading for me was exhausting.

Greta attended a private primary school.

Q: What was your experience like in primary school?

G: I was a very happy child going to school. I liked it. I must say I was also very interested in learning. However, there was something about that school, which called itself inclusive, that was jarring, and some attitudes or situations hurt me.

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[...] I understood that being in school was a certain fact but I had to be a little bit on the sidelines. As if I, compared to the others, was a minor character, an extra, or in any case a little bit different and that I, therefore, had to try in every way to be as unpleasant as possible. [...] there were any discriminatory incidents, but overall, I perceived a climate that probably even the adults were not able to understand. It was like an air that one breathed, a trend that was not oppositional but certainly not welcoming. [...] I was experiencing inadequacy and blaming myself a lot. [...]

The experience of some more attentive teachers and a support teacher who trusts her and believes in her potential give Greta the strength to continue studying.

Q: Was that the whole primary cycle? Or did something happen that changed the situation? *G*: There was a support teacher who came in fourth grade who was with me for two years. Very good educationally and very creative. She was the first teacher who really believed in my potential [...] She gave me the strength to keep learning, and to keep going in school; even though in middle school I did not have professors who valued me as much as I had hoped, I continued with that tenacity and passion to keep going that she had passed on to me. Even if I always found a hostile environment in school at home, I had parents who always conveyed enthusiasm to me ... [...]

In middle school Greta attends a public school, but she is discriminated by some teachers. His parents decide to return to private school, even if this requires a heavy financial commitment.

Q: How was the "re-entry," if we can call it that, into the more familiar environment?

G: A very good re-entry educationally, in the sense that I had very good professors [...] I met many classmates again but found them changed. They were already teenagers. I, probably, in emotional terms was more mature but on others, I was not. I did not understand certain attitudes toward female rivalry, conflict, or small groups. Also, I noticed that if in primary school my visual difficulty for my classmates was acquired, now it was noticed more. A silly example: I used to do tests on the computer and teachers would give me the paper on a USB, just as classmates were given printed sheets, I would hear jokes like "On your paper, there are

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already answers." A silly thing, but it was still a behaviour that hurt me because, on grades, I never felt favoured in any way. [...]

Q: Certainly, these are burdens that have remained anchored in your memory. How was the other important transition, to secondary School?

G: The start at secondary School was also not easy. The path to full inclusion and equal opportunity is still the result of bumpy travails, constant tenacity, and positive belief about the future. The transition was a tiny bit troubling at first, as I had not been able to continue, like many of my classmates, at the same institution. In this case, however, there was no longer any gesture of generosity but outright discrimination. The school openly refused to enrol me in high school; there was also pressure from other families against my enrolment. I developed the conviction that, in those parents, there was an unlovely afterthought: the inability to admit that one (one, in this case) disabled person could turn out to be better than their non-disabled children. [...] There had been no chance to enrol me in any of the classical high schools which I had tried, and in the end, I enrolled in a language high school. We already knew the principal of that school, and we knew that they were very attentive people there, not so much to disability in particular, but to valuing differences in all their forms. The school I was coming from said, "We look at excellence," they, on the other hand, were guided by the San Vincentian charism, thus inspired by helping others, caring for illness, and valuing all human characteristics. The first year was hard because it was a different environment. People who came from other schools with difficult family backgrounds, new subjects. Nevertheless, this reality then became an infinite grace and richness; both from the point of view of classmates, subjects, and professors. I became so passionate about languages - yet in middle school I did not like English - that I almost thought I would continue studying them in college. [...]

GRETA PROGRESS AND EVENTS

A turning point in Greta's story is the transition from high school to university.

Q: What direction did your educational path take? Was it an easy choice? Did you have any doubts?

G: Economics appeared! It was a bit like everything in my life, with some stages and an epiphany. I always liked history in its economic aspects, and during the last two years of high

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school, I followed the economic-political debate a lot. In the institute, we were also hosting the Technical Commercial Institute, and one day, senior year, the economics professor of the technician gave a plenary lecture to all of us fifth graders on the economic crisis. He dwelt on the behavioural aspects related to economics, explaining how it is man's behaviours that move the economy, such as the fall of the stock market after the attack on the Twin Towers. I had become passionate and interested, even though the topic was far from linguistic. I had heard one of my classmates talking about taking the test at Bocconi for the Economics course in English.

Q: The question, as you continue your story, is about teachers: who were the ones who played a crucial role, the ones who allowed you to take a step forward?

G: The crucial teachers, for me, were encountered in college. [...] In high school overall, I felt welcomed as I was. I never perceived from my professors that my disability was a problem. [...] It is important how those who are in the educational position look at you. And, in those professors, the gaze was right: I was a person to them.

In college, I was amazed by meeting the professor of Business Administration and Management. I had shown up in Bocconi intimidated to ask if he thought I could take the test, and take the course, and he replied that he did not understand what the problem was. He, who is blind, said to me, "Miss, as you see I'm here, I'm perfectly fine with it and I don't understand why you shouldn't be here too." [...] that point, I tried the test and was admitted. I studied business administration and management in a bachelor's degree program.

The three-year degree was very good and very intense. There were important professors here, who leave their mark, like the professor I mentioned earlier, who followed me the whole time and also played an effective role in some respects. [...] the economics professor was an effective figure. He asked a lot of the students but was a point of reference. The other figure I encountered was on the second-year budget exam. It was a complex, very difficult exam, the terror of all students. In class I was so focused on not missing a single word from the professor, I would come out of those lectures devastated but I was so passionate about it. This lecturer had a strong feeling for the discipline, to the point where she could make you love accounting, a subject that seems so dry. I took the written exam not with her but with the course leader: he had the paper in front of him and I dictated what to write. [...]

INCLUSIVE EDUCATION: A CASEBOOK FOR GOOD PRATICES

Q: What is your present like and what destination are you heading toward?

G: At present, I am doing my doctorate in Management and Innovation at the Catholic University. In life, I always felt that I had several plans B, C, and D because, in my opinion, we all have to have them but with a disability even more. When I finished university, I felt the doctorate was a "calling." Meeting these teaching figures gave me the impetus, without presumption, to take up the doctoral program with conviction because, having experienced my skin, in my school years, the meaning of partial or lack of acceptance, of not feeling recognized by teachers, I strongly desire, in addition to the commitment of research, to be of help to those students as shy as I was, as uncertain and unsure as I was, in my future profession as a university teacher. So, after graduation, I rolled up my sleeves and set out to try to write a research project. [...] I took the oral for admission. It was a very nice exam because there were three strict but welcoming commissioners, they asked questions more on a personal level to test whether we were motivated. Knowing how difficult and articulate an academic career is, the commissioners went to check the motivation thoroughly. The next day the email came with a positive outcome and I was overjoyed. This was one of the milestones of my life [...] I am living a present that makes me active.

Q: In your future, after all the steps taken, the stumbles but also the achievements, what do you see?

G: I have learned to live day by day. [...] However, as a dream, I see a very simple future. Full of good things: certainly, to be able to stay in college and one day become a professor. To have a family, a home, to be a mom.

Greta is open to life, full of hope. Her awareness grew through many painful experiences. However, in June 2023 Greta completed her PhD in Management and Innovation. She closes the interview talking about equal opportunities, the recognition of human diversity and the fight against prejudices. She started travelling in Europe and participates in international conferences. She publishes her works in national and international magazines.

THE LABORATORY: "PUT YOURSELF IN MY SHOES "

This is an outreach event held annually at Sacred Heart Catholic University with the intent of having participants experience visual, motor, and hearing disabilities to raise awareness of the entire academic community concerning special educational needs.

Students with disabilities will mentor participants and guide them to put on their shoes to understand the way they experience the university and raise awareness about inclusion.

1.VIDEO:

https://www.youtube.com/watch?v=48hWv5h_lUg&pp=ygUbTWV0dGl0aSBuZWkgbWlla SBwYW5uaSB1Y3Nj

2.VIDEO:

https://www.youtube.com/watch?v=xWNFvfhxID8&pp=ygUbTWV0dGI0aSBuZWkgbWlla SBwYW5uaSB1Y3Nj

CONCLUSION AND THOUGHTS FOR THE FUTURE

The history of Inclusive Education at school and social equity in Italy boasts fifty years of experience and production also from a legislative point of view (Accessibility Italian Law "Legge Stanca", 9 January 2004, n. 4 - G.U. n. 13 del 17 January 2004-, based on "Provisions to promote the access of disabled people to information technology tools").

In Italy, there are specific Laws on Inclusion and also about Accessibility to regulate criteria and procedures for the construction of web spaces accessible to all, no one excluded.

Certainly, the interest in this issue is transversal and global, and there are numerous scientific references to support the necessary work for the removal of barriers of all kinds: from architectural barriers to cultural and digital ones.

Including and promoting accessibility is a constantly open project at Catholic University. Welcoming students to the University means contributing to their education and, more importantly, allowing them opportunities for personal and social growth. Living university life also means learning how to move in society: Nobody excluded.

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